

**The process of institutionalization-deinstitutionalization and
children's psychological adjustment in Rwanda:
Parents matter**

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Abstract

Negative effects of institutionalization and positive effects of deinstitutionalization on children's wellbeing have been well documented. However, the majority of reports on institutional care rely on adult interviews and there is a wide disparity of results and methodologies in few result-oriented studies of deinstitutionalization outcome. In addition, though all over the world, especially in developed countries, many children in orphanage have parents, little is known about on the effect of having or not living biological parents and be institutionalized.

The present thesis aims generally to investigate whether institutionalization negatively impacts the psychological adjustment of children. Specifically, this thesis aims at (1) exploring children's perceptions on institutionalization process; (2) investigating the influence of biological parental living status on institutionalized children's psychological adjustment; and (3) evaluating the effectiveness of deinstitutionalization as well as conditions for better psychological adjustment once children are deinstitutionalized. With a prospective longitudinal comparative design, focus group discussions and self-report questionnaires were used by the present thesis to collect respectively qualitative and quantitative data from 177 children aged 9 to 16 and their parents/primary caregivers divided in 6 registered orphanages and 5 primary schools in Rwanda. Grounded theory was used to analyze qualitative data whilst analysis of variance and multiple regression were used to analyze quantitative data. Outcome variables included externalizing and internalizing behavior, attachment and self-esteem.

Taken together, our results show that institutionalization has a negative impact on children's psychological adjustment. The most remarkable and unexpected finding is that Rwandan children living in institution have more impairment in psychopathological symptoms when they have living parents. They considered institutionalization as an orphanization process. Another remarkable finding is that the present thesis failed to prove the improvement of psychological adjustment due to de-institutionalization in all domains as expected. The improvement was reported in attachment while no change was observed in externalizing behavior or self-esteem after deinstitutionalization and worse, internalizing behavior worsened among de-institutionalized children. Family relationships and parenting involvement were reported to be the strongest predictors of children's psychological adjustment in most of measured outcome variables. Unexpectedly, socioeconomic

status, didn't gain as much importance in that prediction. Contrariwise, adult's perceived quality of life was a significant mediated predictor in children's externalizing behavior and had a moderating effect in children's internalizing behavior.

This should be considered to develop and improve supportive specific interventions for children and considered when making the decision of placing or not a child with parents in an institution. Results suggest the intensification of identifying and addressing the behavioral problems as part of deinstitutionalization process focusing also on family characteristics to improve children's psychological adjustment. Moreover, understanding the development of psychopathological problems during the process of institutionalization and de-institutionalization may be key to preventing high costs associated with these disorders across the life course.

Globally, it is estimated that approximately 153 million children who have lost a mother or a father; 17.8 million of them have lost both parents (Pinheiro, 2006) including more than 12 million orphans in sub-Saharan Africa (Morantz & Heymann, 2010). In many cases an “orphan” may still live with primary or extended family (Foster et al., 1995). An orphan is hereby defined as a child under the age of 18 years old whose both parents are deceased (Dillon, 2008). Families, particularly in traditional societies, involve a connections of large network among people through varying degrees of relationship including generations, geographic area and reciprocal obligations (Foster, 2000). In many traditional societies including Rwanda, the concept of “parents” is more social than biological. It reflects social roles and responsibilities of an adult towards a child (Nsabimana, 2013). In case a biological parent dies or is unable to care for his/her biological child for example, relatives, close friends and neighbors use to statute to who orphaned children would belong.

However, all orphans and other children in need are not totally absorbed by traditional safety networks, or other family based services. In 2009, around 8 million children were living in institutions worldwide as was estimated by UNICEF (Browne, 2009a). Institutionalization is not limited to developing countries and countries in transition, but it is also common throughout the European Region (Browne, Hamilton-Giachritsis, Johnson, & Ostergren, 2006). In some countries the number of children in care institutions is far superior to that of children in family care or in community settings. In Japan for example, about 90 % (about 33,000) of children and youth placed outside their original family are in institutions, with only 6% placed in foster care (Mathew Colton & Williams, 2006). In Poland, about 62 000 children are institutionalized, compared to 50,000 in foster care (Stelmaszuk, 2002). In Rwanda, 3,323 children and young adults are reported to currently reside in 33 officially recognized institutions (Ministry of Gender and Family Promotion & Hope and Homes for Children, 2012). With Rwanda’s strong tradition of informal child-care practices, 16.8 per cent of households care for a ‘foster’ child according to 2015 Rwanda Demographic and Health Survey (National Institute of Statistics of Rwanda (NISR), Ministry of Health Rwanda, & ICF International, 2015).

In general, orphanage system is understood as the institutional care system for orphans (Ahmad et al., 2005), or for children with no surviving parents (Foster et al., 1995). Thus, all children reared

in orphanage are called orphans whether they have or not biological parents. Most of these parents have been deprived of their parental rights legally or socially (Mulheir & Browne, 2007). With regard to this widespread misconception about the 'orphan' status of children in orphanage, Save The Children (2009) showed that in Central and Eastern Europe and the former Soviet Union countries only 2% of institutionalized children were true orphans. According to same source, in Africa, 10 to 41% were placed into orphanage though they had one or both parents whilst no biological orphan was institutionalized in western developed countries. At least four out of five, among up to 8 million children placed in what are known as orphanages globally, have one or both parents alive (Browne, 2009)

Referred herein as institutionalization, removal from family and subsequent transition to an orphanage incorporates a comprehensive range of stress factors for the child, and poses enormous challenges for the child's psychological adjustment (Shechory & Sommerfeld, 2007). In addition, orphanages rarely meet the average acceptable environmental conditions for children's normal development and psychological adjustment. They often lack stable caregiving as well as open opportunities for exploration and mastery of the world (Engle et al., 2011; Toth & Cicchetti, 2013).

Numerous studies have documented the negative effects of institutionalization on children in various domains of functioning, including their physical, socio-emotional, and cognitive development. Compared to children raised in families, institutionalized children demonstrated higher rates of negative psychological outcomes such as insecure attachment (The St. Petersburg—USA Orphanage Research Team, 2008), intelligence Quotient (IQ) (IJzendoorn, Luijk, & Juffer, 2008), attention and social problems (Gunnar & Van Dulmen, 2007b; Hawk & McCall, 2010) as well as higher rates of emotional and behavioral problems. Equally, existing research suggests that institutionalized children are consistently more vulnerable to developing psychopathological symptoms, more specifically internalizing and externalizing behavior problems (Cheung, Goodman, Leckie, & Jenkins, 2011) as well as low self-esteem (Nilofer Farooqi & Intezar, 2009; Pinheiro Mota & Matos, 2012).

As a response to above documented detrimental effects of institutionalization, deinstitutionalization programs have been introduced and recommended. According to Bakermans-Kranenburg, Van IJzendoorn, & Juffer (2008). placing children from institutional care

into families can be seen as the most significant intervention possible for any human condition. International instruments like the UN Guidelines for the Alternative Care of Children (UN General Assembly, 2010) recommend practices to stop the expansion of institutional care settings for children without parental care and rather promote de-institutionalization by improving family-based alternative care.

Though institutionalization represents a well-studied model of early adversity, there is still a need for further attention to some relevant features. First, the majority of reports on institutional care rely on adult interviews; the voices of children have been conspicuously absent from the debate (Rauktis, Fusco, Cahalane, Bennett, & Reinhart, 2011). Second, although parental loss is one of the most extreme social deprivation a child can experience, little is known about the role of being or not orphan on the effect of institutionalization. The majority of studies on the impact of parental death for childhood well-being have been conducted almost only among children who currently reside in the family with their surviving parent or another family member (Shaw, Bright, & Sharpe, 2015). Third, In few existing result-oriented studies, Little, Kohm, & Thompson (2005) highlighted the wide disparity of results and methodologies when studying what happens to children after deinstitutionalization. Moreover, previous studies gave a divergent importance on Child and family characteristics in the determination of deinstitutionalization outcome (Pine, Spath, Werrbach, Jenson, & Kerman, 2009).

In addition, most studies have focused on developed countries, and very little information is available regarding developing countries, with a particular lack of information from sub-Saharan Africa (Frimpong-Manso, 2013; Walakira, Ochen, Bukuluki, & Alllan, 2014).

In this regard, Rwanda presents an important example of compounded adversity wherein genocide, severe poverty, and HIV/AIDS have had devastating consequences for the functioning of families and the larger community; and damaged the social system that once facilitated healthy child rearing. In addition, deinstitutionalization program undertaken by the Government of Rwanda offers an opportunity to follow-up and compare outcomes while children are still in institution and when they are reintegrated into family.

The present thesis aims generally to investigate whether institutionalization negatively impacts the psychological adjustment of children. Conceptualized as an individual's ability to effectively cope with environmental demands and associated stressors (Keyes, Shmotkin, & Ryff, 2002), in the present thesis, psychological adjustment is assessed with different outcomes balancing between positive and negative affect (Human, Biesanz, Finseth, Pierce, & Le, 2014; Manso, García-Baamonde, Alonso, & Barona, 2011). Outcome variables include internalizing and externalizing problems, attachment problems and self-esteem. Specifically, this thesis aims at (1) exploring children's perceptions on institutionalization process; (2) investigating the influence of biological parental living status on institutionalized children's psychological adjustment; and (3) evaluating the effectiveness of deinstitutionalization as well as conditions for better psychological adjustment once children are deinstitutionalized. Three studies constitute this thesis, each one responding to one of the above specific aim.

With a prospective longitudinal comparative design, focus group discussions and self-report questionnaires were used by the present thesis to collect respectively qualitative and quantitative data from 177 children and their parents/primary caregivers divided in 6 registered orphanages and 5 primary schools in Rwanda. Grounded theory was used to analyze qualitative data whilst analysis of variance and multiple regression were used to analyze quantitative data.

A part from introduction, the present report is subdivided in four sections: theoretical background, methodological part, results and discussion. Results are presented and discussed in this report by study but before announcing results and discussing them, theoretical background and detailed methodological process are introduced.

I. THEORETICAL BACKGROUND

In this section, a description of institutions is first provided including nature, origin and effects of institutionalization on child's development. Then, a central theme of this thesis, psychological adjustment, is explored. It's relation with institutionalization is enlightened by demonstrating its dimensions and indicators which constitute the outcome variables for the present thesis. This is followed by a critical review of existing theoretical causal explanation of the effects of institutionalization. Then, family and deinstitutionalization comes in where the role of family environment in child's adjustment is reported followed by a description of deinstitutionalization process and effectiveness. Before the section ends, as to contextualize this thesis, a specific Rwandan context is traced. Lastly, research questions and hypothesis emerging from the above theories are shown.

1. Description of institutions

This section intends to describe institutions by showing their nature, origin, reasons for placement and frequently cited effects of institutionalization on children's development.

1.1 Characteristics of institutions

The terms 'institution' and 'institutional care' refer here to sort of residential care without a parent or guardian for longer than three months providing care for large numbers of children of 25 or more, or small numbers of children between 11 and 24 in a building often referred to as a 'children's home' (Mulheir & Browne, 2007). In the present thesis we use alternatively the concepts of orphanage and institution. Orphanage has been described as a form of total institution when the ecology of institutional life for young children is considered (Bakermans-Kranenburg et al., 2011a; Engle et al., 2011; Smyke, Zeanah, Fox, Nelson, & Guthrie, 2010; The St. Petersburg—USA Orphanage Research Team, 2008). In the same perspective, Goffman (1961) had defined a total institution as a place of residence and work where a large number of like-situation individuals, cut off from the wider society for an appreciable period of time, together lead an enclosed, formally administered round of life.

The nature of orphanage differs largely from one institution to another and from one unit to another

within an institution. According to van IJzendoorn et al. (2011) there can even be variability in the care individual children receive within the same grouping. Based on the quality of care they provide, Gunnar's study (as cited in van IJzendoorn et al., 2011) classified institutions into three following levels: (1) institutions with global deprivation of the child's health, nutrition, stimulation, and relationship needs; (2) institutions characterized with adequate health and nutrition support, but deprivation of the child's stimulation and relationship needs; and (3) institutions that meet all needs except for stable, long-term relationships with consistent caregivers. It potentially possible to add, according to van IJzendoorn et al. (2011), a fourth level of institutional environment that provides for stable and consistent caregiving, and only deprives children of a regular family life embedded in a regular social environment was argued. They gave an example of small group home type of institutions such as representing this fourth level of institutional environment.

Nonetheless, researchers like Dozier, Zeanah, Wallin, & Shaffer (2012) and van IJzendoorn et al. (2011) confirmed that there are certain common features of institutional care that have characterized these settings across countries and continents. These include generally group sizes that tend to be large; groups tend to be homogeneous with respect to ages and disability status, the number of children per caregiver is large; children are periodically "graduated" from one age group to another; caregivers tend to change constantly for any single child; Other adults tend to come and go in children's lives, including medical and behavioral specialists, prospective adoptive parents, and volunteers who may visit for only a week or a few months; caregivers typically receive little training, and the training they do receive is more focused on health issues than on social interaction; caregivers are mostly female, so children rarely see men; when caregivers perform their caregiving duties, it is likely to be in a business-like manner with little warmth, sensitivity, or responsiveness to individual children's emotional needs or exploratory initiatives.

Despite the best intentions of the institution, the care children receive in an orphanage cannot possibly mimic the care provided in a family environment. The St. Petersburg-USA Orphanage Research Team (2008) found that characteristics of caregiving institutions in most cases are "acceptable with respect to medical care, nutrition, sanitation, safety, toys, and equipment". In contrast to physical health and safety, the team found that the "social and emotional interactions between caregivers and children [were] extremely limited and noticeably deficient" (The St.

Petersburg—USA Orphanage Research Team, 2008).

Even in the best of circumstances, as summarized by the study of Gunnar and colleagues (as cited in Tottenham, 2012), institutional care is suboptimal in that the caregivers are staff members, rather than parents, who rotate shifts and, due to the devastatingly low caregiver-to-child ratio, are under great pressures to cater to the physical needs of a large number of children.

To determining outcomes, the overall quality of institutional care is likely to play a key role in. Children in institutions with more and better nutrition, more staff, and more personalized care and social and cognitive stimulation would be expected to fare better and those with the obverse to fare worse (van IJzendoorn et al., 2011). However, the relative inter-influence of these different elements of provision is not known. It not known whether provision in one key area could override the damaging effects of other elements of the risk of institutions. It is not known whether provision of better food for example completely counterbalance the harmful effects of severe and chronic social deprivation. (E. Sonuga-Barke & Rubia, 2008) argued that while an adequate diet would likely improve outcomes in some domains residual deficits would be likely to remain even in brain development and closely related functions.

Referring to institutional care structure and subsequent outcome, van IJzendoorn et al. (2011) used the expression of institutional maltreatment or structural neglect, an expression they borrowed from Gil (1982): “Acts and policies of commission or omission that inhibit or insufficiently promote the development of children or that deprive or fail to provide them with the material, emotional, and symbolic stimulation needed for their normal development”. Pointing to the fact institutions fail to respond adequately to children’s basic needs for stable and positive personal relationships as well as for adequate care and stimulation by their arrangement and form of operation, structural neglect was qualified by van IJzendoorn et al. (2011) as the probable main and most widespread form of institutional maltreatment.

1.2 History of institutions

Orphanages have a long history in western European countries. In Italy, in response to the growing number of abandoned babies in cities in the 14th and 15th century, foundling homes were established (Dozier, Zeanah, Wallin, & Shaffer, 2012). Foundling homes increased over the next

several centuries in other parts of Europe and Russia. The presence of orphanages in Switzerland dates from the seventeenth century. Cities (eg Zurich in 1637, St. Gallen in 1663) created orphanages designed to receive orphans (Gabriel, Keller, Bolter, Martin-Blachais, & Séraphin, 2013). In 18th century, abandoned and orphaned children in North America and Europe were typically placed with neighbors or in city almshouses, or indentured into apprenticeships. Orphanage were established by religious organizations and charities in USA, during the 1800s, in response to increased urbanization, multiple epidemics of cholera, tuberculosis, yellow fever, and influenza and the American Civil War (Crenson, 1998). Into the early 1900s, the expansion, both in the number of new orphanages created and in the number of children cared for, continued (Crenson, 1998).

Since then institutionalization was often equated with the tradition in many Western countries. Developing countries have rather "imported" orphanage as a "modernity" in the beginning of 20th century. At that moment, developed countries like USA, were initiating the opposite movement of deinstitutionalization (Dozier et al., 2012). In many developing countries, care for children that couldn't be raised in their family of origin was, traditionally, family or community based. Members of the extended family would take care of these children. With modern developments, the traditional model of childcare tended to disappear and to be replaced by institutional care (Barth, 2005). In Rwanda for example, the first orphanage was opened in 1954 followed by 4 orphanages in 1979 (Ministry of Gender and Family Promotion & Hope and Homes for Children, 2012). There was a rapid increase in the number of orphanages during the 1990s (14 new orphanages) following the Genocide. The newest institution opened in 2010. Over half of the 33 institutions were founded by missionaries and faith-based organizations. In Ghana, the first orphanage was established in 1949 by a voluntary organization (Frimpong-Manso, 2013). The latter author noted that in the early 1900s, foreign Missionaries had introduced residential care facilities (RCFs). After independence of Ghana in 1957, residential care remained the main formal alternative care option maintained by Governments. Between 1964 and 1998, the state, together with missionary and other philanthropic bodies established seven more care facilities to care for 500 children (Frimpong-Manso, 2013).

As said in introduction, the total number of children in institutions worldwide is estimated by UNICEF to be around 8 million (Browne, 2009) and institutionalization is not limited to

developing countries and countries in transition, but it is also common throughout the European Region (Browne Hamilton Giachritsis, Johnson & Ostergren , 2006).

1.3 Reasons for placement

Poverty is often the main reason cited as for placing children in orphanages. Evidence shows the “pull factor” of resorting to institutional care in many regions where material poverty is prevailing, as the way of meeting such basic needs as food, access to education, and other services for children (The Faith to Action Initiative, 2014). The University of Nottingham (2012) found that in more than 90% of cases of children abandonment and subsequent placement in orphanages in Europe, poverty and homelessness were the reasons behind. According to The Faith to Action initiative, (2014), poverty together with lack of ability to avail education supplies, transport, clothing, etc. for children or parental illness is the pushing energy for families to place a child in residential care in parts of Africa and Asia. In Rwanda, poverty, together with death of a parent or abandonment by a parent, are the reason for placement in an orphanage in 40% of all cases (Ministry of Gender and Family Promotion & Hope and Homes for Children, 2012). However, there is also a widely known cognizance that where orphanages do not exist, families and community members are more likely to undertake or seek other ways to care for orphans and vulnerable children within families (Ministry of Gender and Family Promotion & Hope and Homes for Children, 2012). A detailed paragraph of institutionalization reasons in Rwanda is presented in the section of particular context of Rwanda.

Another significant reason that children are placed in orphanages is disability. UNICEF, (2010) confirmed that one-third of children in institutional care in Central and Eastern Europe and the Commonwealth of Independent States are there because of disability. For many families who have children with disability, and don't have access to appropriate support services, they place those children in institutions. This happens from different context around the world according to UNICEF (2013). Cultural beliefs and persistent discrimination may also lead to the abandonment of children with disabilities according to the latter author.

Child abuse and chronic neglect is another reason. Parents or other caregivers especially those who abuse alcohol and drugs or have untreated mental illness are also reasons for placement of children

in residential care to prevent or manage child abuse or neglect (The Faith to Action initiative, 2014). In some context, single parenthood and associated stress, family breakdown, or parental illness, together with inaccessibility to adequate social support system, medical care, or services such as day care, can also increase the risk of loss of parental care and place the child into institution (The Faith to Action initiative, 2014).

The last reason is the weakened traditional social security system. Indeed, in most of African traditional societies including Rwanda, there were no orphans because all the father's brothers were fathers to a child' (Roscoe, 1965). The sense of duty and responsibility of extended families towards other members was almost without limits (Foster, 2000). Insufficient resources were not an issue to care for orphaned children in need. Extended family, especially paternal aunts and uncles, used to care for orphaned children by taking on the caregiving functions of parents.

Protecting the vulnerable and caring for the poor and sick were the roles of the traditional social security system composed first by extended family members. The system used also to transmit traditional social values and education (Foster, 2000). Foster described changes that weakened traditional social security system such as labor migration, the cash economy, demographic change, formal education and westernization. About labor migration and urbanization, she revealed that they have led to a reduction in the frequency of contact with relatives and encouraged social and economic independence. According to her, possessions are then perceived as personal property and no longer belong to the extended family. Following an increased life expectancy and family size she argued that it is now impossible for an extended family of three or four generations to reside together. Foster highlighted also that education about social values occurs through schools and interactions of children with their peers, rather than through traditional mechanisms, lessened the ability of older people to exert social control over children.

1.4 Effects on child's development

Here we briefly present the most frequently cited developmental deficiencies that most institution-reared children display. These include delayed physical growth and brain development, dysregulation of the neuroendocrine systems, delayed cognitive development, and deviant attachment and/or attachment disorder. In the section regarding indicators of psychological

adjustment, further effects are presented on outcome variables for this thesis including externalizing and internalizing behavior, attachment and self-esteem.

1.4.1 Cognitive Development

Studies documented that children in institutions often showed significant delays in intellectual and cognitive development. For example, in a meta-analysis of 75 studies, (IJzendoorn et al., 2008) found that children living in institutional care scored on average 20 points lower on intelligence tests than children who were raised in families. In that study, differences between institutionalized children and comparison children did not depend on whether children were raised by birth parents, foster parents, or normative data.

In the study of Pollak et al. (2010), the neurodevelopmental sequelae of early deprivation were examined by testing ($N = 132$) 8 and 9 year old children who had endured prolonged versus brief institutionalized rearing or rearing in the natal family. As a result, children raised in institutionalized settings showed neuropsychological deficits on tests of visual memory and attention, as well as visually mediated learning and inhibitory control.

In their study, Smyke et al., (2007) found that the Mental Development Index (MDI) scores for children being raised in institutions were markedly below those of never institutionalized children, as were Developmental Quotient scores.

Another example is from the study by Marshall & Fox (2004). They used Electroencephalogram (EEG) data from institutionalized and never-institutionalized children to assess cognitive functioning at the level of differential brain activation. They examined differences in alpha and theta power. They found a result consistent with EEG studies of children facing environmental adversity and children with learning disorders. Institutionalized group showed a pattern of more low-frequency (theta) power in posterior scalp regions and less high-frequency (alpha and beta) power than never-institutionalized group, particularly at frontal and temporal electrode sites. The never-institutionalized group also showed more marked hemispheric EEG asymmetries than the institutionalized group, particularly in the temporal region. Marshall & Fox concluded that the specific deficits in attention and executive functioning that have been seen among institutionalized children are consistent with these EEG results. According to them, this pattern of results suggests

that there is either deviant or delayed development due to cortical hypo-activation or delayed cortical maturation.

1.4.2 Hormonal Development

According to results from studies of cortisol production obtained from institutionalized children, the functioning of the hypothalamic-pituitary-adrenocortical (HPA) system is affected by institutional care.

Dobrova-Krol, van IJzendoorn, Bakermans-Kranenburg, Cyr, & Juffer (2008) studied the effect of institutional rearing on diurnal cortisol production. Sixteen institution-reared children (3–6 years old) in Ukraine were compared with 18 native family-reared children, pair-matched on age and gender. Diurnal salivary cortisol was sampled six times during 1 day to study stress regulation. The overall diurnal cortisol production of institution-reared children was higher than in the family-reared group but only for the temporarily stunted institution-reared group. Non-stunted institutionally reared children had a significantly higher total daily cortisol production than both chronically stunted institution-reared children and family-reared children.

In their study, Gunnar, Morison, Chisholm, & Schuder (2001) found that the longer beyond 8 months that the Romanian children remained institutionalized the higher their cortisol levels. However, results showed that 6.5 years after adoption of those Romanian children into families in Canada, children who lived for more than 8 months in orphanage in Romania exhibited the expected decrease in cortisol levels over the daytime hours, as did children adopted with less than 4 months of institutional care and children reared in their families of origin. The mediation role of alterations in growth or neuroendocrine activity as measured while children are in institutional care or shortly after adoption in the relation between cognitive and emotional functions is not yet clear (van IJzendoorn et al., 2011).

1.4.3 Physical development

Physical development of institutionalized children was found to be behind others'. Compared to others, institutionalized children showed atypically short height, low weight, and small head circumference.

In the study of Dobrova-Krol et al. (2008), physical growth trajectories were examined on the basis of archival medical records and current measurements of height, weight, and head circumference among 3–6 years old children. 31% of institution-reared children were stunted at 48 months whereas none of the family-reared children were. Substantial delays in physical growth were observed in institution-reared children especially during the first year of life.

Smyke et al. (2007) found that Children reared in the institutional setting had poorer growth when compared to their community age mates. When birthweight was entered as a covariate, findings were similar, with the exception of weight for height which was no longer significantly different. Height, weight, and head circumference of infants and toddlers in institutions were about a standard deviation below norms and significantly different from children living in the community.

In their follow up study, (Sonuga-Barke, Schlotz, & Rutter, 2010) found that differences in growth trajectories for weight and head circumference of previously institutionalized children and comparison children in height were no longer apparent soon after children left institutional care. Catch-up in weight seemed to be largely complete by 11 years of age irrespective of duration of deprivation and sub-nutrition. However, differences were significant and pronounced at the age of 15.

From this section it is clear that previous studies provided convincing evidence that institutionalization has a negative impact on key developmental domains including cognitive development, hormonal development and physical development. Next lines present negative effects of institutionalization as a cluster of syndromes.

1.5 Institutional syndrome

Several studies have found similarities in the deficits found in institutionalized children, deficits that persist even in post-institutionalized children once they have been removed from orphanages and are being raised in family settings. Thought referring to those problems as a syndrome has been critically discussed in literature, we first present them as described by their authors. Later on, a critical view of syndrome based description of institutional outcome will be discussed.

1.5.1 Hospitalism

Hospitalism has been defined as the physical or mental effects of hospitalization or institutionalization on patients, especially infants and children in whom the condition is characterized by social regression, personality disorders, and stunted growth (“Hospitalism,” 2009). According to Rothman (1962), hospitalism sometimes referred to as hospitalismus is a disorder involving changes in behavior as the result of emotional deprivation and absence of sensorial and social stimuli. The changes that occur quoted by the latter author include language, social adjustment neuromuscular development, and, in some instances, acquired attitudes that are said to persist into adult life.

Though this disorder has been first observed in badly-supervised orphanages and residential nurseries, Rothman (1962) suggested that similar disturbances in children are observed in modern teaching hospitals. He therefore recommended the medical profession to include in the routine of the best pediatric centers certain measures designed to prevent emotional disturbances in the hospitalized child.

Furthermore, an extension of the use of “hospitalism” has been done by Coleman & Provence (1957). They referred hospitalism to an environmental retardation leading to inadequate maternal care leading to the child’s developmental retardation even in family setting. The syndrome was considered by the latter authors as severe such that a differential diagnosis has to be made including retardation due to central nervous system lesions.

Finally, Rene Spitz’s used the concept of hospitalism in his observations and studies in the 1940s about early bonding and attachment (Spitz, 1945). Spitz reported that babies raised in a foundling home environment under the clinical care of nurses working eight hour shifts, failed to grow and develop. Among children he observed, more than a third died. Most were physically, mentally and socially retarded and 21 of them were still living in institutions after 40 years, still unable to care for themselves because of their early deprivation. He then established that young children deprived of nurturing human touch and human interaction would be harmed and die despite good food, safe housing, proper hygiene, and adequate medical care.

1.5.2 Institutionalism

Johnson & Rhodes (2008) defined institutionalism as the syndrome (group of symptoms) that results from the process of institutionalization. According to them it is characterized by apathy, lethargy, passivity, and the muting of self-initiative, compliance and submissiveness, dependence on institutional structure and contingencies, social withdrawal and isolation, an internalization of the norms of institutional culture, and a diminished sense of self-worth and personal value. Contrary to hospitalism which refer mostly to infants and children, institutionalism was used to refer to any institutionalized individual. In the case of adults, hospitals especially psychiatric hospitals were the main reference of institutionalism studies.

To get to this above definition, Johnson & Rhodes (2007) cited previous following supporting studies. The first study is the one of Bettelheim and Sylvester (1948). They referred to psychological institutionalism as a syndrome resulting from institutional placement on children. They considered this to be a “deficiency disease in the emotional sense,” caused by the “absence of meaningful, continuous interpersonal relationships”. A particular attention was paid to the impact of “depersonalized rules and regulations,” which seemed to lead to emotional impoverishment.

Second, institutionalism was described by Barton in 1959 by introducing the concept of institutional neurosis. With that syndrome, a person living in institution was considered as “well institutionalized” to allude to the adjustment to the institution setting. Being “well institutionalized” meant that the inmate had ceased to rebel against, or to question the fitness of his position in an institution surrendering to the institution life. Institutional neurosis was believed to result from seven factors associated with the physical environment: loss of contact with the outside world; enforced idleness; bossiness of institution staff; loss of personal friends, possessions, and personal events; drugs; ward atmosphere; and loss of prospects outside the institution.

The last concept to describe institutionalism was brought by Ellenberger’s study (as cited in Johnson & Rhodes, 2007). He described the phenomenon using the French term “alienization”. The process of institutionalization and the results was compared to what happens to wild animals

that are captured and put in zoos. Ellenberger emphasized the “trauma of captivity” and the frustration of the natural territorial and hierarchical instincts of both zoo animals and humans.

1.5.3 Adopted Child Syndrome

“Adopted Child Syndrome” was introduced by Kirschner to explain behaviors in adopted children that seem rather uniquely related to their adoptive status (Kirschner, 1990). According to the latter author behaviors would include problems in bonding, attachment disorders, lying, stealing, defiance of authority, school difficulties, and acts of violence. The link to adoption-related dynamics makes “Adopted Child Syndrome” to be different from other conduct disorders, such as unresolved issues around the birth parents’ rejection, fantasies about the birth parents, and identity difficulties (Kirschner, 1990).

However, the term of Adopted Child Syndrome has never achieved total acceptance in the professional and scientific community because of the lack of uniform empirical data (J. Smith, 2001). Smith recognized that adopted child is an at-risk group for developing emotional problems in as much as she/he is disproportionately represented in mental health caseloads. Nevertheless, he argued that using the Adopted Child Syndrome term deviates from major scientific research and professional principles.

1.5.4 Post-Orphanage Behavior (POB)

Though it is difficult to verify the direct relation between specific environmental conditions lived by a former institutionalized child with the resulting psychological traits of the growing up person who now lives in the family, some studies identified expected and common patterns of behavior in post-institutionalized children.

Post-Orphanage Behavior (POB) syndrome was described by Gindis (2012) as a cluster of learned (acquired) behaviors that could have been adaptive and effective in orphanages but became maladaptive and counter-productive in the new family environment among post-institutionalized children. Gindis identified several components of post-orphanage behavior described in the following paragraph.

(1) Self-parenting or an attempt to assume the role of parent, thus denying the actual parents and their major social role; (2) Learned helplessness or seeking more than needed attention from caregivers when they appear helpless; (3) Controlling and avoiding behavior or overwhelming need to be always in control, to be on known and manageable "turf" or better to be perceived as being uncooperative rather than an underachiever; (4) Self-soothing and self-stimulating behavior or active resistance to any changes in routine and environment, excessive reaction to even ordinary stimuli, extreme restlessness, obsessive touching of self and objects, unusual reaction to some sensory stimuli (taste, smell, touch), making unusual, animal-like sounds; (5) Extreme attention seeking or fiercely compete for adult attention, sometimes through negative behavior (it is better to be punished than ignored) and "person-oriented" versus "goal-oriented" (behavior to "achieve" for many of post-institutionalized children means to get an adult's approval, not to accomplish the task); (6) Feeling of entitlement or the feeling of if one member of a group has something, other members of the same group are supposed to get the same, too, whether they need it or not; (7) Hyper-vigilance and "pro-active" aggressiveness or perception of usual day-to-day events as threats and reacts inadequately, boys can be "tough" and proactively aggressive in their urge to dominate peers and protect themselves from the "expected" hostility of their environment. Girls can present themselves in a seductive and promiscuous way, trying to control the situation by means unexpected in their age group;

1.5.5 Institutional autism

Institutional autism has been defined by Gindis (2008) as a learned behavior produced by an institutional environment such as an orphanage. He argued that children may acquire autistic symptoms due to their early life in orphanages, hospitals, and other similar institutions. Gindis made differential diagnosis between autism as a medical condition and learned autistic-like post-institutional behaviors. Hower, he concluded that institutional autism is merely a description of certain patterns of post-institutionalized behavior that may appear similar to what is observed in children with autism.

2 Psychological Adjustment

In this section, psychological adjustment is approached in two ways: first it defined and its relations with institutionalization is given. Second, indicators of psychological adjustment which constitutes the outcome variables for the present thesis are described. Each outcome or indicator is described in details and its relation with institutionalization is discussed.

2.1 Institutionalization and psychological adjustment

Several studies demonstrated that in case of rejection of children by their parents and the lack of necessary affection and support, children face difficulties to adapt personally and socially as a consequence of inappropriate parental practices by the caregivers which may lead to appearance of emotional and behavioral problems in the children (Manso, García-Baamonde, Alonso, & Barona, 2011). As we have previously noted, removal from home and the transition to an institution embody a whole range of stress factors for the child and pose enormous challenges for the child's adjustment resources (Shechory & Sommerfeld, 2007). Those studies considered institutional care as a model of early adversity a human being can face. Though, children in institutional care show delays and maladaptation in various domains of development, not every child is affected in the same way and to the same degree (van IJzendoorn et al., 2011). The way these difficulties show themselves will vary with respect to the intensity of the experiences and the circumstances that follow the events (Manso, García-Baamonde, Alonso, & Barona, 2011). The outcome will depend on children's psychological adjustment.

Psychological adjustment is often conceptualized as mental health component reflecting an integrated functioning or ability to cope effectively with the demands of the environmental context as well as the stress created by these demands (Seaton & Cherisse, 2009). Psychological adjustment has been assessed with different outcome variables including the balance between positive and negative affect (Keyes et al., 2002).

In a study conducted in Rwanda to investigate protective processes and resilience in Rwandan children and families found five forms of protective resources including perseverance (*kwihangana*) and self-esteem/self-confidence (*kwigirira ikizere*) at individual level (Betancourt, Meyers-Ohki, et al., 2011). Descriptors of *kwihangana* were more behavioral and included the

active maintenance of social ties, “interacting with peers”, and “playing with others”. Children with *kwihangana* were portrayed as “well-behaved”, “hard-working”, “good hearted” and “calm”. *Kwigirira ikizere* was less associated with behaviors. Children with *kwigirira ikizere* were described as having courage in the face of challenges and as possessing a sense that they can “do many things” (Betancourt, Meyers-Ohki, et al., 2011).

These culturally based indicators of adjustment were considered in this thesis.

2.2 Dimensions of adjustment

Manso and colleagues inventoried two principal areas of a child's adjustment: personal and social (Social area include school and family). They also insisted on the meaning children give to their life experience, which add on a third dimension of cognitive adaptation. Studying how the child feels in each of these areas (personal, social and cognitive) will give us a more adequate idea of how they are adapting.

2.2.1 Personal adaptation

According to (Manso et al., 2011), personal adjustment supposes a self-adjustment or dynamic balance that will be reflected in our thoughts, emotions or actions and is constantly readjusting itself. Manso and collaborators highlighted that personal adaptation, refers not only to the fact of feeling happy with oneself, but also with the environment or the reality in which we live. On a personal level, when an adequate personal adaptation is not achieved, maladjustment lead to failure to undervaluing of self and implies such behavior patterns as fear or unease, to carry upon one's own shoulders the tensions one is living through, and self-punishment, or indirectly, through states of depression and/or somatization (Manso et al., 2011).

At the other hand as response to environment that might protect them from deprivation related risk children may either reduce their exposure to risk factors or alter their impact once they have been exposed by engaging actively some feature of their personality or appearance (van IJzendoorn et al., 2011). In addition, evidence that genetic factors can moderate pathways between social risk and developmental outcome is growing. Regarding institutional deprivation generally, and/or to the effects of institutional deprivation on specific outcomes, child-based genetic factors may then

operate to reduce or increase the vulnerability of a particular child. (van IJzendoorn et al., 2011)

However, not much is known empirically about how much early deprivation has a negative impact considering gene expression within humans (van IJzendoorn et al., 2011). Consequently, we focus on two-measurement outcome of personal adaptation: self-esteem and internalizing behavior which will be discussed in the next section.

2.2.2 Social adaptation

Although boundaries between personal and social adaptation are difficult to draw as there is much interaction, social adaptation is referred to when an individual manage to adapt successfully to the requirements of human groups (Manso et al., 2011). Social adaptation means such aspects as adequate interpersonal relationships, respect or adapting to rules (Emler, 1994). In order to feel well adapted, the child must develop such aspects as respect towards others or the rules, collaboration, empathy, autonomy, evaluation of one's environment, understanding and integration of social values, etc. (Martín, Torbay, & Rodríguez, 2008). According to Rosenthal & Groze (1994), some children who are subject to a process of residential and/or family care use the forms of interpersonal interaction that may be adaptive in the environments the children come from, but not so in a new context (care center or family). In general, the children tend to use the behavior patterns that previously allowed them to “survive” which constitute a social adaptation problems according to Rosenthal and Groze.

Social maladjustment will be characterized by lack of social skills, affective problems, insecurity and difficulties to control their impulses when faced with obstacles or pressure from those around them (Emler, 1994). In the present thesis, attachment and externalizing behavior are indicators of social adjustment with less attachment problems and less externalizing behavior problems indicating better social adjustment.

2.2.3 Cognitive adaptation

Taylor (1983) proposed a theory of cognitive adaptation to threatening events. He argued that the adjustment process centers around 3 themes: a search for meaning in the experience, an attempt to regain mastery over the event in particular and over life more generally, and an effort to restore

self-esteem through self-enhancing evaluations.

Though, these themes have been originally discussed with reference to cancer patients' coping efforts, Lazarus & Folkman (1984) used them to understand adjustment towards diverse adverse life events. Successful cognitive adjustment, according to Taylor, is mainly a function of the ability to sustain and change illusions that buffer not only against present threats but also against possible future setbacks.

The first theme of search for meaning involves, as stated by Lazarus & Folkman (1984), the need to understand why a crisis occurred and what its impact has been. Causal attribution is one of the ways in which meaning is then addressed. In line with attribution theory, people will make attributions so as to understand, predict and control their environment following a threatening or dramatic event. One may also begin to understand the significance of the event and what it symbolizes about one's life by understanding its cause.

A second theme of the adjustment process identified by Taylor (1983) is gaining a feeling of control over the threatening event so as to manage it or keep it from occurring again, a theme of mastery which is exemplified by beliefs about personal control. Overall positive adjustment is strongly associated with both the belief that one can control one's own adverse event and the belief that there is someone or something else that can control it.

The third theme in adjustment following a range of threatening events including being institutionalized, refer to the effort to enhance the self and restore self-regard and self-efficacy Taylor (1983). Even when the events can be legitimately attributed to external forces beyond the individual's control, Taylor (1983) asserted that there is often a precipitous drop in self-esteem followed by an initiation of cognitive efforts to pull themselves back out of their low self-regard. Some of the most intriguing illusions that contribute to self-enhancement are generated by social comparison.

In the present study, cognitive adaptation is then measured by the meaning children attribute to their experience of institutionalization and self-efficacy as described in the following lines.

2.3 Indicators of adjustment

As it emerged from the above review, each dimension of psychological adjustment was measured in general by two indicators. The personal adaptation is measured by self-esteem (Manso et al., 2011) and internalizing behavior (Manso et al., 2011), social adaptation is indicated by externalizing behavior (Emler, 1994) and attachment (Rosenthal & Groze, 1994; Fraley, Heffernan, Vicary, & Brumbaugh, 2011) while cognitive behavior is indicated by children perceptions and meanings (Taylor, 1983) and self-efficacy (Lazarus & Folkman, 1984). In the following lines we discuss each indicator. For each one, a brief description is provided and its association with institutionalization described.

2.3.1 Externalizing problems

For the purpose of the present thesis, externalizing behavior disorders are broadly viewed as including problematic behaviors typically associated with both rule breaking behavior (delinquency) and aggressive behavior (aggression) as defined by Achenbach (1991). Internalizing symptoms are studied as indicated by a continuous screening symptom measure, rather than a disorder diagnosis (Trudeau, Spoth, Randall, Mason, & Shin, 2012).

In the literature externalizing behavior problems is usually conceptualized as reflecting the child negatively acting on the external environment through a group of behavior problems that are manifested in children's outward behavior (Liu, 2004). According to Kendall (2012), aggression is a set of primary interpersonal actions comprising verbal or physical behaviors that are destructive or injurious to others or to objects. Aggression intends to harm or threaten to harm others, including children, adults, and animals. Kendall (2012) notes that, although, almost all children display some of this type of aggressive behavior, it is only when aggression is exceptionally severe, frequent, and/or chronic that it becomes indicative of psychopathology. Children who display aggressive behavior often are diagnosed with oppositional defiant disorder in the terms of the Diagnostic and Statistical Manual of Mental Disorders (DSM, American Psychiatric Association's (APA), 2013).

According to Achenbach (1991) delinquency is specifically used to reflect the type of antisocial behaviors that are reflected in behaviors such as lying, cheating, stealing, and committing

antisocial acts with bad companions. Children who engage in delinquent behaviors tend to be diagnosed with conduct disorder in the terms of DSM (Kendall, 2012).

Children with externalizing behavior are more likely to grow up to become delinquent as adolescents, and criminal and violent as adults. However, most children display externalizing behavior, but as their nervous system, cognitive development and verbal abilities advance, their use of externalizing behavior decrease usually in toddlerhood. By the time they enter school, externalizing behaviors have declined and are usually well managed and stable throughout adolescence.

For the sake of understanding locally, culturally, and contextually relevant mental health problems among Rwandan children and adolescents, (Betancourt, Rubin-Smith, et al., 2011) found concepts that shares some similarities with Western rule breaking behavior and aggressive behavior. *Uburara* was described as manifestations of behavioral problems shaped by the cultural context in Rwanda. *Uburara* was associated with bad or delinquent behavior, including being unruly, and taking drugs. According to (Betancourt, Rubin-Smith, et al., 2011), children with *uburara* “play dangerously” and “roam without purpose”, *taking* high-risk behavior such as fighting or precocious sexual activity. Betancourt et al. found also that the concept of *uburara* included behavior like “roaming about without purpose” that may be typical of teens in wealthier countries, but was seen as problematic in the Rwandan context.

Another concept they find that may be linked to externalizing behavior was *umushiha*. They described it as persistent irritability or anger that make a child “talk rudely”; be consistently “annoyed” or “grouchy”, “not appreciating anything”, “quarreling” and “being unkind” (Betancourt, Rubin-Smith, et al., 2011).

In orphanage the prevalence of externalizing problems was found to be higher than in general population. In a Jordan study for example, Gearing, MacKenzie, Schwalbe, Brewer, & Ibrahim (2013) found that the prevalence was 46% of institutionalized children. Keil & Price (2006) analyzed the literature related to the prevalence of externalizing behavior in community samples of school-aged children and adolescents and studies involving institutionalized children. In the community it was estimated to be between 7% and 20% whilst institutionalized children had over

twice the likelihood of having externalizing behavior problems. The average prevalence rate for externalizing problems was 42% in that group. In the study of Simsek, Erol, Öztop, & Münir (2007), the prevalence of internalizing behavior was more than double for children in orphanage compared to children who have never been institutionalized; 9.3%, in community versus 22.7% in orphanage.

Concerning etiology and development of externalizing behavior, McKee, Colletti, Rakow, Jones, & Forehand, (2008) noted from the literature that high degree of coercion in the cycle of parent-child interactions constitutes the main risk factor for development and maintenance of externalizing behaviors in children. According to the coercion hypothesis, instinctual infant's basic aversive behaviors such as crying, shapes maternal behaviors like feeding for the infant's survival., Some children will continue to rely on aversive behaviors which evolve over time from crying to increasing levels of noncompliance due to ineffective parenting practices. However, the authors noted that most infants progressively acquire more adaptive and less aversive social and verbal skills as they age. Similarly, parents who withdraw their command or fail to follow through negatively reinforce the child's negative and resistant behavior. McKee et al. highlighted that parent may begin to rely on increasingly harsh parenting strategies in an attempt to control the child's behavior if children ramp up their negativistic and resistant behavior in response to each future directive from the parent. As this cycle continues, children are reinforced for their coercive responses and the rate and intensity of these behaviors increase significantly and potentially perpetuate their problem behaviors beyond family environment (McKee et al., 2008).

2.3.2 Internalizing problems

One of the most common psychological disorders during childhood, adolescence, and young adulthood is internalizing disorders, specifically anxiety and depressive disorders (Trudeau et al., 2012). Internalization was referred to by Cosgrove et al. (2011) as the propensity to express distress inwards. Such disorders are most often characterized by quiet, internal distress sometimes referred to as "intropunitive," rather than overtly, socially negative, or disruptive behavior (Tandon, Cardeli, & Luby, 2009). In behalf of Liu (2004) internalizing are problems that more centrally affect the child's internal psychological environment rather than the external world. Common internalizing disorders include mood disorders (e.g., major depressive disorder, dysthymia) and

anxiety disorders (e.g., generalized anxiety disorder, separation anxiety disorder, phobias, obsessive compulsive disorder) (Cosgrove et al., 2011).

In the present thesis we considered both depression and anxiety disorders as internalizing behavior as measured by Child Behavior Checklist (Achenbach, 1991) because there seem to be general consensus in the literature about their classification (Jacob et al., 2014). Internalizing symptoms are studied as indicated by a continuous screening symptom measure, rather than a disorder diagnosis (Trudeau et al., 2012).

Though anxiety and depression are both internalizing disorders, they are different. They both share elevated negative affect but depressed individuals exhibit low positive affect while anxious individuals display high physiological hyperarousal (Jacob et al., 2014). Children with internalizing behavior problems are more likely to grow up to become depressed and anxious

Most children have various fears and worries throughout their childhood and such apprehensions are often labelled as anxiety (Christophersen & Mortweet, 2002). Younger children demonstrate stranger anxiety and later on separation anxiety. As children age, other common anxiety develops, such as fear of the dark, worries about social performance, fear of harm to loved ones and fear of dying. When both symptoms of anxiety and impairment are present, the child should be evaluated for a possible anxiety disorder (Christophersen & Mortweet, 2002).

Anxiety in children was then defined as a multidimensional construct that comprises behavioral, somatic, cognitive and emotional elements (Mash & Terdal, 1988). The cognitive distress experienced by anxious children may include rumination or excessive worry, or anxious thinking (Kendall, 2012). For all that, the most prominent behavioral response to anxiety is avoidance, but other response may include shaky voice, rigid posture, crying, nail biting and thumb sucking (Barrios & Hartmann, 1988). Children with anxiety may report physiological response including an increase in automatic nervous system activity, perspiration diffuse, flushed face and trembling (Kendall, 2012).

Depression in children is characterized by the lack of interest in activities they previously enjoyed, are pessimistic or hopeless about the future and criticize themselves (Hazell, 2002). They may also feel sad or irritable. Difficulties with concentration and indecision among those children lead to

problems at school. As described by Hazell (2002) children with depression tend to lack energy and have problems sleeping; they may have stomach aches or headaches. Morbid thoughts may progress to suicidal thinking and even suicide attempts.

For the sake of understanding locally, culturally, and contextually relevant mental health problems among Rwandan children and adolescents, (Betancourt, Rubin-Smith, et al., 2011) found concepts that shares some similarities with Western rule breaking behavior and aggressive behavior. Three identified syndromes among other are similar to Western internalizing disorders: *Guhangayika*, *agahinda kenshi* and *kwiheba*. *Guhangayika* was described as a state of constant worry or “stress” that comprises both anxiety-like and depression-like symptoms including “thinking too much”, to be never at ease, to not talk or play with others, to cry without reason and to isolate oneself (Betancourt, Rubin-Smith, et al., 2011). *Agahinda kenshi*, which was considered more severe than *guhangayika*, was described as a problem of “persistent sadness or sorrow” including loneliness, unhappiness, crying and low morale. *Kwiheba* was associated with severe hopelessness which is indicated by suicidal ideation such as “wishing to die” and “feeling that life is meaningless”, feel pessimistic or hopeless about life and their future prospects, and being often uninterested in interacting with peers or adults (Betancourt, Rubin-Smith, et al., 2011).

The prevalence of internalizing problems during childhood was evaluated to range from 10 to 15% of US preschoolers meeting diagnostic criteria for a DSM anxiety or depressive disorder (Shanahan, Calkins, Keane, Kelleher, & Suffness, 2014). Those rates were comparable to the one found later in life which suggest that early-onset internalizing problems predict more severe and persistent later mental health problems (Shanahan et al., 2014). Usually, internalizing disorders resume over the life course and their cumulative prevalence generally increases with age (Chan, Dennis, & Funk, 2008a). However, in orphanage rates are higher than in general population. In a Jordan study of prevalence, (Gearing et al., 2013) found that 43% of institutionalized children had internalizing behavior as reported by Achenbach Child Behavior Checklist and case history. In the study of (Simsek et al., 2007) the prevalence of internalizing behavior was almost double for children in orphanage compared to children who have never been institutionalized; 8.9% in community versus 15.6% in orphanage.

Concerning etiology, biological, genetic and environmental factors are the commonly cited causes in existing literature. In the bivariate behavior genetic studies compiled by Cosgrove et al. (2011), the overlap between genetic influences on anxiety and depression was greater than overlap between non-shared environmental influences, with little evidence of common shared environmental influences. For biological factors, Wetter & El-Sheikh (2012) presented a large body of evidence suggesting that children's Respiratory sinus arrhythmia (RSA) was an important factor in the development of adaptive and maladaptive behavior including internalizing problems with higher resting RSA associated with a more organized response to stress. Family and individual characteristics were identified as environmental risk and protective factors for developing internalizing symptoms (Trudeau et al., 2012). Trudeau et al. inventoried for example family characteristics that were related to higher levels of depressive and anxiety symptoms in adolescents including absence of parental approval, attachment, and support; family conflict, ineffective problem-solving skills; and authoritarian parenting.

2.3.3 Attachment

Bowlby (1988) defined attachment as a human being biological pre-determined tendency, to form, during the first several years of life, affectional bonds with others in order to ensure protection, comfort and ultimately survival. In children, attachment pattern is supposed to be stable by the age of 3 (Fraley, 2002). Across the first 19 years of life, Fraley affirm that representations of early experiences are retained, moderately stable and continue to play an influential role in attachment behavior throughout the life course including interpersonal relationships. In early adolescence and later, interpersonal experiences are the base for the construction of mental representations, or working models, of the self, significant others (parents, friends and romantic partners later on) and interpretation of the social worlds (Fraley et al., 2011).

As such, assessing the security of working models is crucial for understanding interpersonal relationships and personal adjustment. Mikulincer, Shaver, & Pereg (2003) highlighted that Anxiety and Avoidance appears to be the most frequently measured dimensions of attachment in persons other than younger-age population. Scoring high on either or both of these dimensions is assumed to be in insecure attachment orientation (Wei, Russell, Mallinckrodt, & Vogel, 2007).

Attachment avoidance concept was introduced by Ainsworth. Her work was summarized by Catlett (s. d.) as follow. In the “Strange Situation” procedure, Ainsworth observed the responses of infants during separation and reunion experiences. The avoidant infants avoided or actively resisted having contact with their mother when their mother returned to the room. Older avoidant children appeared to be more emotionally isolated, hostile, and aggressive than their peers. As adolescents, they tend to be unpopular and disliked by classmates and teachers and are less emotionally involved with their family than teens with secure attachments. During many frustrating and painful interactions with rejecting attachment figures, they have learned that acknowledging and displaying distress leads to rejection or punishment.

According to Wei et al. (2007), attachment anxiety involves jealousy and fear of interpersonal rejection or abandonment. Wei et al. assume that the person with attachment anxiety express an excessive need for approval from others, and distress when one’s close person is unavailable or unresponsive. By contrast, for Wei et al. attachment avoidance involves fear of dependence and interpersonal intimacy and avoidant individuals express an excessive need for self-reliance, and reluctance to self-disclose, find discomfort with closeness and seek independence.

In the present thesis we are more interested in attachment avoidance as it gives more insightful information about the relationships between child and caregiver in the context of institutionalization and deinstitutionalization. Cummings & Cummings (2002), described an interesting particular strategy avoidant individuals use. By diverting their attention from anything that would activate attachment behavior, avoidant children do not appear to be comfortable in relying on the attachment figure in the relatively threatening and stressful context (Cummings & Cummings, 2002). The latter authors inferred subsequently that, on their turn, parents or caregivers of avoidant children are more rejecting, tense and irritable, avoidant of close day-to-day interaction with children, thereby fostering less confidence in the child about the parents as a reliable source of security.

Typically, parents or caregivers are equipped with natural intuitive competences to react in a sensitive way on infants’ signals, a sensitivity which the most consistent predictor of the development of a secure attachment style in children (Wolff & Ijzendoorn, 1997). However, as we have already mentioned, institutional nature makes it difficult for caregiver to fulfill attachment

developer role. Pioneering observations dating decades ago have demonstrated that disturbances of attachment are among the most pronounced effects of institutional care setting (Bakermans-Kranenburg et al., 2011b). The rotating shifts, large number of caregivers and high ratio child/caregivers limit the development of stable relationships between children and caregivers (Zeanah, Smyke, Koga, Carlson, & The Bucharest Early Intervention Project Core Group, 2005). St (2008), mentioned for example that by the time of their third birthday, many institutionalized children have had as many as 50 or more different caregivers, and they have often not been able to establish a personal relationship with any of them.

In addition, to experience separation from or loss of their birth parents and other caregivers, institutionalized children are deprived of opportunities to develop stable and continuous attachment relationships. Qualitative and quantitative contact with caregivers necessary for attachment security are difficult to establish due to the nature of institution (Graham, 2006; Roberson, 2006; Zeanah et al., 2005). The attachments of the majority of institutionalized children are incompletely developed or even absent, as demonstrated in the following studies recent studies contrary to children raised in families who, virtually, develop clear attachments to specific caregivers (Dozier et al., 2012).

Studies using the Strange Situation Procedure (SSP) showed high rates of insecure attachment and especially high rates of disorganized attachment among institutionalized children. For example, a study in Chinese children living in institution reporting infant caregiver patterns of attachment confirmed high levels of avoidance (50% of toddlers observed), with a complete absence of proximity seeking in the vast majority of the children (Steele, Steele, Archer, Jin, & Herreros, 2009).

Indiscriminately friendly behavior is another form of attachment insecurity found in institutionalized children. It refers to children's lack of diffident with unfamiliar adults, readiness to approach and attract strangers, and failure to keep proximity to attachment figures in unfamiliar settings (Lyons-Ruth, Bureau, Riley, & Atlas-Corbett, 2009). Studies have found that institutionalized children from Romania, Portugal and Greece presented less secure attachment (5.3 - 37 %) and more disorganized attachment (15.8 - 65.8 %) than children reared in family (Torres, Maia, Veríssimo, Fernandes, & Silva, 2012). Romanian studies revealed that 15 to 42 %

of institutionalized children had abnormal-insecure or not classifiable attachment pattern including passive expression and no attachment behavior observed at all (Karen Bos et al., 2011).

Studies found also a number of children deemed “Unclassifiable” in terms of attachment among institutionalized children. Using the continuous attachment rating scales, these children received low scores on the scale, reflecting the fact that they did not show any attachment behavior at all or hardly differentiated between the caregiver and the stranger (Bakermans-Kranenburg et al., 2011b). This situation recalls the case of children with cognitive impairments.

In a collectivist society like Rwanda, contrarily to western individualistic culture, individual’s strength is evaluated in relation to the quality and quantity of socio-network formed around him/her which explain their interdependent culture. Attachment, mutual relatedness, role orientation and compliance are of utmost importance to be able to survive in collectivistic cultures (Rothbaum & Trommsdorff, 2007). While independent persons from individualistic cultures are seen as oriented towards their individual goals being autonomous, interdependence in collectivist culture postulates linkage with and support of others (Rothbaum & Trommsdorff, 2007).

In this collectivist society, it would then be simplistic to consider a solely dyadic attachment. As individuals mostly live in the framework of extended families and a network of relatives care for the children one should consider the existence of multiple caregivers (Keller, 2003). The model of “alloparenting”, found in many cultural environments, have been introduced by Hrdy (2009) to explain, from an evolutionary point of view, that support in raising offspring from kin and also non-kin is indispensable. For example in Central African Republic, Meehan (2005) inventoried approximately 20 caregivers per young children of the Aka tropical forest foragers. In Cameroonian Nso, to grow a “good child”, mothers prevent infants from forming special bonds to only them so that they can be easily cared for by multiple caretakers and allow mother to work (Otto, Potinius, & Keller, 2013).

Ainsworth’s study in Uganda (Ainsworth, 1967) showed that infants raised under conditions broadly similar to those found in East Africa grow up normally according to Western measures and become observably attached to their mothers and others who communicate with them.

2.3.4 Self-esteem

One of the most cited indicators of personal adjustment in the literature is self-esteem. Through its role as a buffer against the impact of negative influences, self-esteem seen also as internal moderator of stressors, contributes to better health and positive social behavior (Mann, Hosman, Schaalma, & de Vries, 2004). Positive self-esteem, actively seem to contribute to better personal adjustment including mental well-being, happiness, success and satisfaction as well as recovery after severe diseases while low self-esteem leads to maladjustment as stated by the latter authors.

Four self-esteem competing conceptual models can be distinguished in the literature (Fortes, 2003): dispositional, situational, interactionist, and dynamic models. Respectively, those conceptual models consider self-esteem as a stable personality trait resulting from the perception of own competences; a state of changing personality in relation to the context; a homeostatic steady state and an emergent property of a dynamic system. Objective evidence on the method of arriving at common understanding from above conceptual models is sparse.

In the present thesis we consider a definition of Coopersmith (2002) who centers on the relatively enduring estimate of general self-esteem rather than on specific and transitory changes in evaluation. Coopersmith (2002) proved that the self-esteem of a person remains constant for at least several years as demonstrated by measurements obtained under similar conditions and with the same or relatively similar instruments. The above finding would suggest that at some time preceding middle childhood, a person arrives at a general appraisal of his or her worth, which remains relatively stable and enduring over a period of several years. According to the above author, this appraisal can presumably be affected by specific incidents or by environmental changes but apparently it reverts to its customary level when conditions resume their “normal” and typical course.

Considering that, Coopersmith (2002) defined a person’s self-esteem is a judgment of worthiness that is expressed by the attitudes he or she holds toward the self or a subjective experience conveyed to others by verbal reports and other overt expressive behavior. In other words, the same author stated that self-esteem is the evaluation a person makes and customarily maintains with regard to him or herself. Coopersmith (2002) added that self-esteem expresses an attitude of

approval or disapproval and indicates the extent to which a person believes him or herself capable, significant, successful, and worthy.

A second consideration in relation to the definition that have been highlighted by Coopersmith (2002) is that self-esteem may vary across different areas of experience and according to sex, age, and other role-defining conditions. For him, it is conceivable that a person would regard him- or herself as very worthy as a student, moderately worthy as a tennis player, and totally unworthy as a musician. Subsequently, a person's overall appraisal of ability would presumably weight these areas according to their subjective importance, enabling him or her to arrive at a general level of self-esteem. The term "self-evaluation" used by Coopersmith (2002) in his definition refers to a judgmental process in which a person examines his or her performance, capacities, and attributes according to personal standards and values and arrives at a decision of his or her worthiness.

At the time when Maslow (1943) ranks at the top of needs pyramid the need for self-esteem where as he places at the bottom of the pyramid the basic physiological needs such as "eating", in the Rwandan imagination "better to starve than being insulted." This means that the need of self-esteem is a basic need for a Rwandan. Rwandan self-esteem is one of the most important wellbeing domains destroyed by Genocide (Nsabimana, 2006).

Also, the most important pillars of children's self-esteem are having someone to whom they belong, parents (Nsabimana, 2012). Precursor to the Genocide in Rwanda, progressive erosion of positive sociocultural values led to the destruction of self-esteem pillars including "parenthood": children killed parents or/and parents killed children (Nsabimana, 2006). Children who used to belong to the entire community, no longer know to whom they belong. No clear limit between generations and children are condemned to be at the same time parents and children as said by Uwera and Brackelaire (2011). While one is called parents because he has children, some parents are condemned to be called so without children.

In the study of Nilofer Farooqi & Intezar (2009), children in orphanages reported lower degree of self-esteem than children living in families. The findings further suggested no significant gender difference in self-esteem. In light with this result Coopersmith noted that children with high self-esteem have a much closer relationship with their parents than do children with low self-esteem.

Indeed, placement into institution or being abandoned by primary caregiver pose serious is problematic to children's self-esteem as children perceive that only a useless or worthless object is abandoned (Nsabimana, 2012). With this destruction of traditional points of reference, it not easy to recognize "who" or to say so "what" one is. The difficulty to find an answer to that question indicates how much self-esteem or even the simplest identity to which no one is supposed to be wrong is itself affected by the process of institutionalization. All of what a child can consider as part of him/her and that he/she can call "I"; "Me"; "Mine", have been solemnly and intimately quashed (Nsabimana, 2012). In essence children are most likely to have healthy self-esteem when the significant people in their lives are accepting and non-judgmentally and when communication is clear and unambiguous (Plummer, 2007).

According to Erikson's study (as cited in Mann et al., 2004), during childhood and adolescence, the development of self-esteem depends on a wide variety of intra-individual and social factors including approval and support, especially from parents and peers, attachment and un-conditional parental support. The internalization of parental approval or disapproval as well as peers' supportive reactions determine children's self-esteem and adjustment.

DuBois & Flay (2004) noted a lack of clarity regarding causal relations between self-esteem and problems or disorders as the directionality can work both ways. However, Mann et al. (2004) made available studies that highlighted the relationship between self-esteem, internalizing and externalizing problems. Citing Herbert, Mann and collaborators mentioned that under circumstances of insecurity and low self-esteem, the individual evolves in either active escape route or the passive avoidance route. The escape route is associated with externalizing behaviors while the passive route is associated with internalizing problems. Personality characteristics and circumstances, life events and social antecedents will determine whether self-esteem problems express themselves following the externalizing active escape route or the internalizing passive avoidance route. As reviewed by Mann et al. (2004), recent studies consistently show gender differences regarding externalizing and internalizing behaviors among others in a context of low self-esteem. Boys are more likely to have externalizing symptoms while girls are more likely to have internalizing symptoms than boys while. Moreover, girls appear to be better than boys in positive self-evaluation in the domain of behavioral conduct.

This thesis concentrates rather on the evidence for self-esteem as an outcome of personal adjustment to institutionalization.

2.3.5 Self-efficacy

Most of parents who place their children into institutions failed to perform their parental responsibility following a natural inevitable cause like the death or following a socio-economic vulnerability. In some cases, it's rather perceptions or a simple belief that they can't. They believed they don't have enough capability to perform expected level of rearing their children. In many African societies, parents' self-efficacy contributes a lot in building children's self-efficacy through actions, rituals and values channeled through daily communication means. Bandura (1986) highlighted that the initial efficacy experiences are centered in the family and provide the foundation for motivation, well-being, and personal accomplishment in all areas of life. What happens to self-efficacy of institutionalized children? Does institution setting have necessary ingredients to recover affected self-efficacy? Can peers play a crucial role in self-efficacy boosting in the institutional care setting? In the following lines we first visit the literature to find whether some of these questions and others related to self-efficacy may be answered.

Indeed, there is a growing body of evidence that human accomplishments and positive adjustment require an optimistic sense of personal efficacy. Bandura (1986) defined self-efficacy as one's judgments about one's ability to organize thoughts, feelings, and actions to produce a desired outcome. Self-esteem and self-efficacy are different as self-esteem is the feeling good about yourself while self-efficacy beliefs determine how people feel, think, motivate themselves and behave (Bandura, 1986). Over events that affect people's lives like institutionalization, perceived self-efficacy refer to their beliefs about capabilities to produce designated levels of performance that exercise influence over those events (Bandura, 1986).

People with high assurance in their capabilities approach difficult tasks as challenges to be mastered rather than as threats to be avoided. Such an efficacious outlook produces personal adjustment, accomplishments and reduces stress (Bandura, 1986). In contrast, people who doubt their capabilities shy away from difficult tasks, which they view as personal threats. When faced with difficult tasks, they dwell on their personal deficiencies, on the obstacles they will encounter,

and all kinds of adverse outcomes rather than concentrate on how to perform successfully. They fall easy victim to stress and other signs of maladjustment (Bandura, 1986).

According to Pajares (2005), parents who are responsive to their infants' behavior, and who create opportunities for efficacious actions by providing an enriched physical environment and permitting freedom of movement for exploration, have infants who are accelerated in their social and cognitive development. This view is more likely to be feasible in family than in institution due its structure.

3. Causal explanation of institutional care outcome

According to studies reviewed in previous paragraphs, children raised in institutions often suffer from developmental delays and may follow deviant developmental pathways. In the following lines, we review three frequently cited theoretical causal perspectives: attachment theory, early life stress model and ecosystem perspective theory.

3.1 Attachment theory perspective

Attachment theory has become one of the leading theoretical frameworks for the study of emotion regulation, personality development, and interpersonal relationships necessary for personal adjustment (Fraley et al., 2011).

According to Bowlby (1988), key interrelated tasks including forming selective attachments to primary attachment figures are developed during the first several years of life. This is where an infant develops the abilities to regulate physiology, attention, and behavior (Hofer, 2006). The caregiver, functions as a “co-regulator” for the infant. He/she is considered by the latter as better able to cope with the world and provide the necessary protection and comfort. He/she helps the infant return to a homeostatic condition behaviorally and physiologically (Hofer, 1994). Hofer noted that the infant becomes increasingly able to regulate behavior and physiology after many experiences of successfully regulating behavior and physiology over time. According to him, the quality of the developed attachment (that is, the security and organization of attachment) differs according to circumstances in which an infant develops. Nevertheless, infants almost universally develop clear attachments to specific, preferred caregivers (Hofer, 2006).

In this logic, (Fahlberg, 2012) had described how attachment is formed through the Arousal/Relaxation Cycle. Behaviors, most likely crying in the young infant, are triggered when an infant experiences a feeling of fear or discomfort (arousal), according to the demonstration of that cycle. Those behaviors attract the attention of the mother whose response to the infant will determine the quality of the attachment the child subsequently develops (Fahlberg, 2012). The mother's response may be predictable and meet the needs of the infant. This results in the baby achieving a state of quiescence (relax). Security, trust and self-esteem are then facilitated to develop in infant. Fahlberg (2012) notes that during the first weeks and months of a child's life, this cycle is repeated hundreds and thousands of times when an infant manifests a need and the caregiver responds. If the caregiver's response is inconsistently and child's demands are either met irregularly or not at all, this cycle is interrupted (Fahlberg, 2012).

Conditions of institutional care make it less likely that children will develop secure attachment. For example, the high ratio child/caregiver is very common as seen before. One member of staff can be seen caring for between ten and twenty babies and/or toddlers in one shift which make it difficult to respond to the individual needs of all these children as they arise. Many children remain subsequently in a state of discomfort (tension or arousal) for long periods of time (van IJzendoorn et al., 2011). In addition to high ratio child caregiver, institutional system is mainly problem focused. It intends on physical protection and control, where warm reciprocal relationships are not prioritized as not easy (Howe & Fearnley, 2003). If caregivers are weak or unpredictable the individual's ability to make sense of the experience and cope with it will be impaired resulting to attachment insecurity. According to Graham (2006), the security, trust and self-esteem formed early in life between an infant and his/her caregiver are key factors in future child's relationships, psychological development, social competence and personal wellbeing as all new social situations are possessed of social meaning based on history. According to him psychological development occurs as one makes sense of social experience and recognize it as meaningful.

3.2 Early life stress model

The conceptual model has been developed by the Early Experience, Stress, and Neurobehavioral Development Research Network (Loman & Gunnar, 2010) to understand the psychobiological processes underlying the increased risk of psychopathology, particularly disorders of emotion and

attention regulation among children who undergone adverse care from parents and other caregivers. The research network adopted a working definition of ELS based on a number of following arguments.

Responses to stressors experienced during pre-pubertal development are referred to as Early Life Stress (ELS). Several studies including Rogosch & Cicchetti (2005) have indicated that Early life stress (ELS) in the form of adverse care from parents and other caregivers increases the risk of psychopathology, particularly disorders of emotion and attention regulation. The lack of normal parental stimulation is among the most powerful stressors early in life (Levine, 2005). Defined by Weinstock (2005) defined stressors as events or conditions that threaten, or are perceived to threaten, physiological equilibrium. To support protection from and/or adaptation to threat, activity in the central nervous system is involved to mobilize endocrine, autonomic, and behavior systems as a stress response.

The model has been described by its authors as follow:

“Caregiving experienced early in life regulates the activity of critical stress-sensitive systems, which in turn influence the development of systems involved in rapid appraisal and response to threat. Low parental nurturance results in chronic stress to the infant. This biases the developing threat system to rapidly orchestrate larger defense responses (fight/flight/freeze). Over activity of both stress-response and threat response systems may then impact the development of prefrontal regulatory systems, hence increasing the risk for both attention- and emotion-regulatory problems. The neural systems that orchestrate endocrine, autonomic, and behavioral rapid defense responses are expected to be plastic during early childhood. If the child’s care improves, stress- and threat- systems have the possibility to reorganize in order to become less reactive and more modulated. However, children exposed to particularly severe and prolonged inadequate nurturance may be less capable of reorganizing with improved care and this, in turn, may make it difficult for caregivers to sustain appropriate responsiveness to the child’s needs. One hypothesis is that re-organization of the stress- and threat-response systems require that the child experience safety in his or her world. In early development, this requires that the child develop a relationship with a consistently responsive, caring adult. Furthermore, while this model may

apply to most children (and to most developing mammals), vulnerability to early adverse care and recovery in response to improved care are expected to be influenced by the genetic differences among individuals”.

This model is quite important as it is related to the current vulnerability-stress models supporting the cumulative stress hypothesis and the long-term neurobiological consequences of adverse life events early in life (Nemeroff, 1999). Thus, research in epigenetics show that early life stress, in particular child abuse and neglect, loss of parents, leads to changes in the genetic material and increases the risk for psychopathology later (Nemeroff, 1999). Such alterations appear to increase vulnerability to several major psychiatric disorders including for example affective and anxiety disorders (Nemeroff, 1999).

3.3 Ecosystem perspective theory

Ecosystem theory was developed by Johnson & Rhodes (2007). The model suggests that lack of goodness-of-fit between residents and their institutional environment results in psychopathology. To explain the construct of goodness-of-fit, the authors said it is the extent to which there is a match between an individual's needs, rights, goals, and capacities and the qualities of his or her physical and social environment. The mismatch is considered as lack of goodness-of-fit which results in the negative affect and maladaptive behavior. Another argument the authors considered is about residents' perception of the environment and their experiences as opposed to the objective reality of the setting.

Based on the above argument, Johnson & Rhodes (2007) presented a theoretical model of institutionalization. Their model is comprised of five constructs: four contributing factors and the outcome which is the syndrome of institutionalism described in previous lines. Contributing factors include individual vulnerability, conditions of institutional settings, resident perceptions of the institutional environment, and time in care. According to the authors of this model, individual brings to the institution certain vulnerabilities, such as poor health, limited coping skills, lack of a social support network, or mental illness. The institutional setting then imposes certain demands upon the individual. These include the surrender of personal identifier at admission. With longer-term care, this is followed by isolation, regimentation, and de-individuation. The effects of the

objective or actual situation are enlarged by the resident's perception of events, including loss of control and fear of punishment. This is then aggravated by the actual length of time spent in the institution, as well as the resident's perception that there is little or no hope of being deinstitutionalized.

Johnson & Rhodes (2007) explained that all institutionalized persons do not develop institutionalism. They argued that the syndrome is produced from combination of extremes in some or all of these factors. Based on their understanding, Johnson & Rhodes (2007) suggested that the features and characteristics within each construct are additive or cumulative and that the contributing constructs have a multiplicative effect on each other. In other words, each has a magnifying effect, rather than simply adding to the others. They also assumed, without précising it, that there is a cut-off or critical mass of effects that, once achieved, results in manifestation of the syndrome.

3.4 Critics of existing explanation models

The Early Stress model fits well in current etiological models of psychopathology. However, not much is known empirically about how much early deprivation has a negative impact considering gene expression within humans (van IJzendoorn et al., 2011). Moreover, in the context of the present thesis, it would be difficult to get all needed data from institutionalization children whose family history is not clearly known.

The ecosystem model is based on its outcome defined as one single syndrome. Single syndrome outcome has been criticized in different aspects including questionable frequent co-occurrence in affected individuals and a common underlying pathogenesis.

van IJzendoorn et al. (2011) raised the issue that it is difficult to disentangle various causes of delays observed among institutionalized children. They first advanced the difficulty to know whether the institutional experience actually causes the deficits or simply maintains pre-existing deficits in some instances. Second, they wondered whether deprivation experienced by institutionalized children can occur as one isolated form.

van IJzendoorn et al. (2011) discussed about the issue of naming an institutional syndrome. They

recalled three key elements of a syndrome according to DSM-IV (American Psychiatric Association [APA], 1994) including a group of signs and symptoms, their frequent co-occurrence in affected individuals and a common underlying pathogenesis, course, familial pattern, or treatment selection. By definition the authors affirmed that institutionalized children have symptoms and have a common experience of early institutional care.

However, according to van IJzendoorn et al. (2011), some children who have been abused or maltreated by their families reported also some emotional or behavioral problems considered to be typical of institutionalized children. Another point these authors raised is that due to non-shared institutional effects and child related resilience mechanisms, the early experience of institutional rearing should not be seen as necessarily leading to the same outcomes in each individual. van IJzendoorn et al. (2011) assumed finally that it is unclear whether delays in all of the domains need to be present to speak of a syndrome or if, for the same purpose, a combination of certain problems is more critical than a combination of others.

As noted by van IJzendoorn et al. (2011), there is no evidence that such a label would have advantages in terms of the understanding and management of deprivation-specific problems. It would rather confer a false sense of validity on the diagnostic category and the impression that there is an explanation for the deviant behavior.

Though attachment theory pretends to present single cause to all psychopathology observed among institutionalized children, ignoring other potential sources of pathologies, it will be the leading theory for the present thesis.

4. Family and deinstitutionalization

From previous sections, it is un-doubtful that institutionalization is the result of a family dysfunction that results in its inability to remain with his child. In contrast, deinstitutionalization, try to remedy family dysfunctions and reintegrate the family. This section discusses first the evolvement family environment and its impact on child's adjustment and secondly gives an overview of what would one expect from deinstitutionalization.

4.1. Family environment and child's adjustment

A study of family environment provides an ideal context for assessing both the magnitude and the sources of between and within family variation in child adjustment and psychopathology. Overall, there are important mutual connections between the family climate and child and youth adaptation (Moos & Moos, 1983). Evidence suggests that children's personal attributes interact with family environment related to a broad range of important social and emotional behaviors for the emergence of problematic behavior in children (Meunier et al. 2011). In the following lines we first describe a family structure, specifically African traditional family. We then present important family characteristics which have undergone change overtime and constitutes family structural indicators. Indicators including family relationships, parenting, socio-economic status and perceived quality of life which have an influence on the child adjustment are discussed below.

4.1.1 Family structure

Family systems theory understands family as an open, developing, goal-oriented and self-regulating system that reflects complexity and organization through which individual creates and maintain regulating behavioral patterns (Minuchin, 1985). To understand how families are influenced in a larger community as well as by sociopolitical and cultural context, this section presents traditional African families which are to be understood as extended networks embedded in a wider community and cultural context. The following description is largely influenced by Chirozva, Mubaya, & Mukamuri (2007) who made one of the most detailed discussion of the African traditional family dynamics. At the end we put a specific emphasis on Rwandan traditional family organization.

For Chirozva, Mubaya, & Mukamuri (2007), the concept of the African traditional family is premised on expansive kinship network. The traditional family organizations are founded on collective relationships. Thus when the term “family” is used, it does not usually refer to the nuclear or extended family based on the husband- wife relationship but to the extended family based on ancestry. Families in traditional societies, involve a large network of connections among people extending through varying degrees of relationship including multiple generations, over a wide geographic area and involving reciprocal obligations (Foster, 2000). Foster said that,

traditional life is characterized by brotherhood, a sense of belonging to a large family and by groups rather than individuals. The extended family gives security and support and the members share many assets. Many African languages make no distinction between the fraternal brothers and those of the broader family. The terms 'father' and 'mother' can be used to designate any elderly people in the broader family. The more the family is extended, the more it gets a feeling of pride and security.

Family was a central unit of social organization; the economy of the village was built on the family farm and off-farm production activities, which involved all members working together. In an extended family, material co-operation is expected between members. Sometimes, people of the same village are called brothers and sisters. Positive reciprocity which is important in maintaining equilibrium is expected from this collective action.

The influences of the Western money economy, industrialization, migration, urbanization among others, have certainly transformed the African traditional family from what it was fifty to hundred years ago. First, the advent of numerous religions has been instrumental in shaping families' ideology towards gender and other family functions.

Second, there has been a well-documented trend towards nuclear family in Africa which has been interpreted as a response to the processes of urbanization and migration for labor. Availability of employment in urban centers led to large-scale migration of both men and women. Urbanization has created new social classes of family members who are now time bound and resource-rich. Possessions are perceived as personal property and no longer belong to the extended family (Foster, 2000). Many families at the highest economic level hire a household work usually a girl from outside family and makes part of the family (LeVine et al., 1996).

Third, the growth of education has increased the number of people leaving rural areas for education, creating a void in the family. Being educated in these diverse communities including abroad, and then returning home has brought more cultural diversity and changes to the African family. Nevertheless, the Western educational system seems to challenge the value and belief system. Traditionally, families relied on the elderly for knowledge, as these were regarded as repositories of knowledge. Education about social values occurs through schools and interactions

of children with their peers rather than through traditional mechanisms, which has lessened the ability of older people to exert social control over children (Foster, 2000).

Fourth, technological advancement has removed numerous factors that nurtured the “bonding factor” for the traditional African family. Telephone and internet messaging reduced the potential of physical mutual visits for example and changing then patterns of social contacts. Family members now spend less time with each other, at times watching television and the traditional process of socialization of family members has been weakened. Fifth, globalization has a homogenizing effect and its basic mission has been inviting traditional African families to partake of the ‘standardized, routinized, streamlined and global’ consumer culture. For example, children and even adults may now view the western lifestyles as the ideal thing yet this is in sharp contrast with the traditional way of life.

Sixth, some traditional roles of the extended family have been modified whilst others have almost disappeared. It’s now rare for the deceased husband to be inherited by his brother as it used to be in some society like Rwanda and Zimbabwe for example. Marriage has become rather a contract between two individuals, leading to weaker linkages between and within extended families as brideprice consists nowadays of a cash payment rather than cattle and other possessions raised by members of his extended family as it used to be. As brideprice is becoming high monetary value it leads to unions frequently being established without the payment of brideprice, unrecognized by relatives from either family. Consequently, such unions are inherently less stable and children from such unions may be deemed to belong to neither extended family.

Rwandan traditional families where this thesis was conducted in very closely similar to the above description. Adekunle (2007) provided additional description of social organization of Rwandan family. Operating in a patrilineal system, the Rwandan society had the *Inzu* (hut or household) as the core of the kinships. An *inzu* consists of husband, wife and children (the nuclear family) in addition to close relatives (extended families). The man maintains a strong influence as a head and a unifier of the family. Another kinship known as an *umuryango* (lineage) and headed by *umukuru w’umuryango*, the oldest and most influential men consist of people from a number of household who have traced their descent to a common male ancestor. His role includes settling of disputes for family members and representing the family. Members of the family live together in a

compound in a close-knit family relationship where respect for one another is promoted.

Concluding this section, it is clear that traditional family structure which used to serve as social security net for its members has been affected and changed by social changes over the years. Labor, Urbanization, globalization, cash economy, religion technology changed family relationships, parenting, family social integration, economy and the perceptions of the quality of life which, right now mostly evaluated in comparison with western life styles.

4.1.2 Traditional safety net for children

Traditionally, there was no such thing as an orphan in Africa because the sense of duty and responsibility of extended families towards other members was almost without limits (Foster, 2000); orphaned children were taken in independently of sufficient resources to care for existing members. Orphaned children were cared for by members of their extended family, especially by paternal aunts and uncles who took on the caregiving functions of parents. The extended family was the traditional social security system and its members were responsible for the protection of the vulnerable, care for the poor and sick and the transmission of traditional social values and education. In addition to the changes mentioned above, increased life expectancy and family size as well as the diminishing availability of land make it difficult for an extended family of three or four generations to reside together (Foster, 2000).

In general, the extended family safety net is better preserved where traditional values are maintained, such as in rural communities. In countries or regions which are more urbanized, extended family safety nets are weakened. Alternative safety nets with care provided by grandparents or other relatives replaced the one provided by uncles and aunts as traditional practice of orphan inheritance has been lessened (Foster, 2000).

Beside kinship or extended family network, traditional families, in most African communities, children are fostered by unrelated families including family friends, neighbors or persons with human heart or “*Ubuntu*”. Foster (2000) named this arrangement a *Purposive fostering*. According to her, it is a culturally sanctioned procedure whereby natal parents allow their children to be reared by adults other than the biological mother or father. This reciprocal arrangement is based on political and economic considerations and contributes to mutually recognized benefits for both

natal and fostering families. For abandoned children, in some societies like Rwanda, there are individuals known as protector angels (*Malayika Mulinzi*) known to pick and foster informally the abandoned child without any further expected benefits.

A study summarized by Bunkers, Cox, Gesiriech, & Olson (2014) illustrated that approximately 95% of children directly affected by AIDS by having one or both parents who are living with or have died from the disease, continue to live with their extended family. The study continues stating that Grandmothers play a particularly important caregiving role, with approximately 81% of double orphans in Zimbabwe living in this type of care arrangement. Similarly, the same summary indicates that in Moldova, where parental migration for labor purposes leaves children in the care of others, 91% of children for whom both parents had migrated were left in the care of grandparents. In Rwanda, statistics of such situation is not known but probably are not far from the above rates.

Children who slip through this safety net may end up in a variety of vulnerable situations including child headed household, street children, domestic workers or other work and institution.

It is easily deducible from the above paragraph that families which have little contact with their extended family have greater likelihood of orphans being abandoned should the current caregiver die. Children from families with atypical living conditions like, household with domestic conflicts, households headed by single mothers or commercial sex workers are particularly likely to slip through the traditional safety net. Hence, family socio-integration, intra-family relationships, economic status as well as the perceived quality of life and parenting parents/child relations are key determinants of family coping mechanisms. In the next lines, a brief discussion is made to each of those elements.

4.1.3 Family relationships

Recurrent interaction between at least two individuals build relationships (i.e. relational history) between these persons. Those relationships shape the upcoming relational experiences and their quality for each implicated individual which, in turn, provide the relational system with stability and change (Schneewind & Gerhard, 2002). In the following lines the focus will be put on relational aspects found in a family and its implication on children's adjustment.

According to Moos & Moos (1983), family relationships primarily reflect internal family functioning. However, to capture the full range or the real dynamic quality of the relationships, few researchers attempt to measure adequately the nature and quality of family relationships due to the poor degree of conceptualization and/or the measurement strategies (Cernkovich & Giordano, 1987). In the present thesis we opted by the conceptualization and measurement proposed by Moos & Moos (1983) as they go beyond the very basic, surface level measures of family attachment and involvement.

For that, Moos & Moos, (1983) asserted that quality of family relationships, is determined by its cohesion, expressiveness, and level of conflict. The latter authors provided the meaning of each of the three related dimensions. By cohesion they meant the degree of commitment, help, and support family members provide for one another or the way they support one another, the amount of energy they put into what they do at home, and how much feeling of togetherness there is in the family. Moos & Moos conceived expressiveness as the extent to which family members are encouraged to act openly and express their feelings directly, how openly family members talk around home and how freely they discuss their personal problems. Lastly, they considered conflict as a measure of the amount of openly expressed anger, aggression and conflict among family members; the frequency of fights, whether they sometimes get so angry that they throw things, and how often they criticize each other.

According to Moos and Moos (1983), family relations are closely related to child's psychological adjustment. For example, Moos and Moos said that children will have more self-confidence if there is more family cohesion, expressiveness, independence, a socially extroverted family, more organization, and less conflict. In such families, youngsters make more secure attachments, are better adjusted socially, are less likely to be shy, avoid attachments, or have social phobias, more positive relationships with their parents, more personal authority and a stronger identity, and less anxiety. In contrast, Lohman & Jarvis (2000) found that immature defenses and more reliance on avoidance coping and aggression can result from high family conflict and control while youngsters in families that are more supportive, expressive, independent, socially integrated, and organized tend to confront problems directly and to rely more on approach coping and mature defenses relying less on avoidance and emotion-focused coping.

4.1.4 Family social integration

The family, particularly traditional families live in active interactions with other family members and institutions in the society. The next lines discuss the concept of family social integration, a concept that has been used to understand both social structure and individual behavior. The discussion is linked with to child's adjustment.

Voydanoff (2005) defined social integration on the individual level as structural or affective interconnectedness with others and with social institutions. Voydanoff made clear that behavioral component in which individuals participate in formal organizations and informal social relationships are incorporated in the structural component of social integration. He added that within a given relationship, supportive and demanding aspects may coexist as independent dimensions. Moos and Moos (1994) provided a simpler definition that we retained for this thesis. According to them, Family Social Integration reflect the linkages between the family and larger social context or the extent to which a family is socially integrated into the community.

Moos and Moos operationalized their definition into measurable dimensions including the Intellectual-Cultural Orientation, Active-Recreational Orientation, and Moral-Religious Emphasis. According to them, the Intellectual-Cultural is the degree of interest in political, social, intellectual, and cultural activities. They gave an example of how often family members talk about political or social problems, how often they go to the library, and how much they like music, art, and literature. The second dimension, the Active-Recreational Orientation was defined as the extent to which family members participate in social and recreational activities: how often friends come over for dinner or to visit, how often family members go out and how often family members go to movies, sports events, camping, and so on. The last dimension, the Moral Religious, was referred to as measuring the degree of emphasis on ethical and religious issues and values: how frequently family members attend church, synagogue, or Sunday School; how strict their ideas are about what is right and wrong; and how much they believe there are some things that just must be taken on faith.

Family social integration influence family functioning and member's adjustments including children. In the study of Daniels and Moos (as cited in Moos & Moos, 1994), when fathers had

better relationships with their coworkers and supervisors, they experienced better family relationships and their children had fewer adjustment problems. As for mothers who engaged in more activities with friends had higher self-esteem, which was associated with better family relationships and better child functioning. In other studies of Birenbaum and Robinson as well as the one of Davies (as cited in Moos & Moos, 1994), surviving children from parents' death in supportive and socially integrated families tended to be more socially competent and to have fewer behavior problems.

4.1.5 Socio-economic status

Fragile socio-economic conditions or poverty has been mentioned by many studies as one of the reasons for children placement into institution. However, in USA, the child care professional gathering cautioned that no child should be removed from a family solely because of parents' poverty (Dozier et al., 2012). In contrast, in ex-URSS countries, under communism ideology, many children have been taken out of their parents assuming parents' poverty (Ismayilova, Ssewamala, & Huseynli, 2014). The relationship between low economic status and elevated incidence and prevalence of mental illness has become increasingly apparent (Murali & Oyeboode, 2004). It is generally accepted that poverty can be both a determinant and a consequence of poor mental health, and it seems children are at higher risk (Wan, 2008). The following lines describe the role of family socio-economic status on family adjustment in light of existing studies.

A study of economically deprived families and matched families with stable incomes conducted by Silbereisen & Walper (1988) showed that financial hardship reduced family support, which in turn reduced youngsters' self-esteem and led to an increase in behavior problems. According to Rothwell & Han (2009), economic resources are required for families to adjust and adapt to stress. Citing Sherraden's theory, these authors affirmed that family with assets is less likely to fall into chaos, and more likely to maintain social and economic equilibrium. Family members become able to imagine, develop, and plan for future activities that will nurture the family and its coherence (Rothwell & Han, 2009). The latter authors cited Sen who affirmed that as individuals become free to develop and lead lives that matter to them, the management of the resources promotes beneficial cognitive, interpersonal, and behavioral capabilities leading to prolonged and systematic future planning of individuals and the family unit as a whole.

In his study of gendered meaning of assets, Dew (2009) found that asset ownership reduced the likelihood of divorce, although this association was mediated by marital satisfaction and feelings of structural commitment. Dew mentioned that economic resources help families achieve healthy adjustment and adaptation in the context of stress and enhance capabilities that are needed to manage disruptions for family harmony and help families adjust to daily stressors and adapt to sustained stresses (crises).

In the studies reviewed by Moos and Moos (1994), they showed that marital partners with higher education and occupational status or income are more likely to establish families strongly oriented toward personal growth, especially independence and intellectual and recreational activities. Another cited study proved the contrary. Husbands and wives confronted with the husband's unemployment reported less cohesion and more conflict than spouses in control families did whereas among re-employed men, support tended to remain stable or to increase (Moos & Moos, 1994). Consistent with the findings on socioeconomic status, Moos and Moos cited the study of Coon and colleagues which found that better-educated and more intelligent parents tend to develop more expressiveness, independence, and intellectual-cultural orientation in their families which in turn influence the better child's adjustment.

Children in the poorest households are three times more likely to have a mental illness than children in the best-off households (Murali & Oyebode, 2004). Conduct disorder was three to four times more common in children who live in socio-economically deprived families with low income, or who live in a poor neighborhood. However, the mechanisms that place poor children at increased risk of psychiatric disorder may have to do primarily with increased rates of parental and family characteristics associated with child psychiatric disorder, rather than the economic disadvantage itself. In that regard, Wan (2008) cited an unexpected factor that lead to rising mental health problems in children from lower income households which is the increasing degree to which children and young people are pre-occupied with possessions. Children from a lower social class were more materialistic but also were suffering from lower self-esteem and have a lower opinion about their parents (Wan, 2008).

4.1.5 Perceived quality of life

Then if poverty is related to family mal-adjustment and lead to the child abandonment or placement into institutions, one may wonder why all poor families don't abandon their children or place them into institutions? Can't we assume that one of possible answer to that question is that it depends on parents' perceptions and attitudes towards not only socio-economic conditions but also overall perceived quality of life? Lindstrom (1992) highlighted the importance of considering both perceptions of objective conditions (e.g. Material resources) and subjective conditions (e.g. Satisfaction with resources). The following lines define the quality of life and put it in relation to the child's adjustment in the family.

The WHOQOL Group, 1995 (1995) recognized that there is no consensual definition of quality of life. However, they pointed out that there is considerable agreement among quality of life researchers about some of the characteristics of the quality of life construct. In the current thesis, we consider the definition of World Health Organization (WHO). The WHO defines quality of life as 'an individual's perception of their position in life in the context of the culture and value systems in which they live, and in relation to their goals, expectations, standards and concerns (Skevington, Lotfy, & O'Connell, 2004). In the same logic, The WHOQOL Group (1995) stated that quality of life incorporates in a complex way individuals' physical health, psychological state, level of independence, social relationships, personal beliefs and their relationships to salient features of the environment. In measuring quality of life, Smith, Avis, & Assmann (1999) mentioned that subjects may simultaneously evaluate several dimensions to arrive at an overall judgment. For The WHOQOL Group, individuals' perceptions of both positive and negative dimensions must be considered in order to know how satisfied or bothered people are by important aspects of their life, this interpretation being a highly individual matter.

In different studies, quality of life has been found to be related to other family and child adjustment indicators. In their study on quality of life and psychological adjustment, Graf, Landolt, Mori, & Boltshauser (2006) found that good family relationships positively affected both quality of life and psychological adjustment of children while parental stress measure correlated inversely with the child's quality of life. Finally, adverse family relationship and parental stress were both found to be negatively related to the psychosocial dimensions of quality of life.

4.1.6 Parenting practices

In Rwanda, a considerable rate of children has been placed into institution because their mother died even if they still had their living father. However, there is almost no case of a child placed into orphanage because his father died. Can't we assume that fathers' parenting skills are questionable? Another number of children separated from their parents said they fled parents' inappropriate parenting including violent physical punishment. In the next paragraphs, parenting practices are discussed in line with social changes and child's adjustment.

In most cultures mothers and fathers divide the labors of parenting and engage their children by assuming different and complementary responsibilities and by devoting different resources to children (Bornstein, 2001). In the rise of single-parent households, divorced and blended families, and unmarried teen parents, there is an emergence of striking permutations in parenting. However, though any individuals "parent" children, the roles of mother are universal, and motherhood is essential to the development of children. Historically, fathers' social and legal claims and responsibilities have often been more prominent than parenting (Bornstein, 2001).

Beyond mothers and fathers, other members of the parents' household or kin group, like siblings and grandparents, as well as non-familial caregivers, sometimes in institutional settings such as daycare centers are involved in parenting. That is what Bornstein called pluralistic caregiving where at certain time, various people other than biological or adoptive parents assume responsibility for meeting children's developmental needs.

Maccoby & Martin (1983) conceptualized parenting as a combination of varying levels of behavioral control and affection. Regarding parenting beliefs, they include perceptions, expectations, attributions, attitudes, knowledge, ideas, goals, and values about all aspects of child-rearing and child development (Bornstein, 2001).

Therefore, parenting was found to depend on cultures (Weisner, 2002). In non-Western cultures it is common to direct and control children's behavior and display more physical care, feeding on demand and closeness than western mothers (H. Keller & Otto, 2009). Maternal sensitivity, a concept related to parenting was found to be an important predictor of children's attachment security in western cultures (LeVine & Norman, 2001). However, a study from Mali found

maternal sensitivity to only explain little variance of infants' attachment security (McMahan True, Pisani, & Oumar, 2001).

Nevertheless, parents' child-rearing attitudes and practices influence the family climate (Moos & Moos, 1994). More democratic parenting or egalitarian attitudes that value reason and moral authority tend to develop more supportive, well-organized families with more emphasis on social orientation and less control. However, a permissive parenting style tends to establish families with less organization and control.

As stated before, the type of parenting influences children's adjustment. Maccoby and Martin (1983) found that authoritative parenting showed to be positively related to healthy adjustment in children and adolescents. Authoritative parenting was characterized by high levels of parental affection in conjunction with high levels of behavioral control or supervision. Conversely, authoritarian parenting, permissive parenting, and neglecting parenting were associated with child and adolescent maladjustment including externalizing behavior which is among the most widely documented problem resulting mainly from parenting practices. Authoritarian parenting is characterized by low levels of affection and high levels of behavioral control or harsh discipline, permissive parenting, is characterized by high levels of warmth and caring but low levels of behavioral control, while neglecting parenting, is characterized by a combination of low levels of both warmth and control (McKee et al., 2008).

One theoretical model developed to explain the above associations was proposed by Meunier et al. (2011). They proposed that repeated hostile confrontations with irritable parents represent a salient daily stressor that increases the child's psychological distress, diminishes the child's sense of self, and heightens feelings of hopelessness and worthlessness, all of which are symptoms of internalizing problems.

In this last paragraph, a review done by McKee et al (2008) summarizing studies that provide theoretical explanation of the association between parenting style and children's outcome is given. Those reviewed studies showed that parenting characterized by low levels of warmth such as lack of support or involvement interferes with a child's capacity to modulate and regulate arousal. As a result, a child may be less capable of considering the consequences of his or her actions and

refraining from problematic, externalizing behaviors. At the other hand, those studied indicated that high levels of parental warmth have been associated to low levels of child internalizing behaviors, and, conversely, low levels of warmth to high levels of internalizing problems. To explain this, they said that children learn to avoid the deregulation that results from insensitive or unresponsive parenting such as parenting characterized by a lack of warmth by withdrawing. As withdrawal is thought to effectively dampen the arousal system, continued those studies, this internalizing response may become the child's coping strategy of choice and consequently, over time, this coping response may place the child at risk for developing a number of symptoms related to depression and other internalizing disorders.

4.1.7 Death of one or both parents

From the above literature, it is noticeable that the triggering event is the death of one or both parents which cause the detachment of the child from the typical family system. Globally, it is estimated that approximately 153 million children have lost a mother or a father; 17.8 million of them have lost both parents (Pinheiro, 2006) including more than 12 million orphans in sub-Saharan Africa (Morantz & Heymann, 2010). With increased contemporary life expectancy in most developed countries, it is most typical now for individuals to experience the death of parents during adulthood rather than childhood (Marks, Jun, & Song, 2007). In spite of that, in UK for example 5% of children are bereaved of a parent before age of 16 (Ellis, Dowrick, & Lloyd-Williams, 2013). It is without doubt that the situation is far worse in developing countries.

Overall research focusing on the effects of parental loss on children's and adolescent's psychological outcomes remain contradictory (McInerney-Ernst, 2008b). At one hand, studies demonstrated that bereaved children are more likely than their non-bereaved counterparts to develop psychiatric disorders (Atwine, Cantor-Graae, & Bajunirwe, 2005; Black, 1978), internalizing and externalizing distress as well as lower self-esteem and self-efficacy (Thompson et al., 1998; Worden & Silverman, 1996). At the other side, studies found that death of a family member was not related to the report of mental health problems nor to lower self-esteem (Behrendt & Mbaye, 2008; McInerney-Ernst, 2008a; Rheingold et al., 2004). However, the majority of studies on the impact of parental death for childhood well-being have been conducted almost only among children who currently reside in the family with their surviving parent or another family

member (Shaw et al., 2015).

4.2 Deinstitutionalization

In this section, deinstitutionalization will be presented. An overview in terms of definition and historical background is first provided. Second, how deinstitutionalization is done is described briefly. Lastly, the effectiveness of deinstitutionalization is discussed in line with child's outcome and cost analysis.

4.2.1 Definition and history

Deinstitutionalization is defined as the intervention aiming at finding new placements for children currently residing in institution and setting up replacement services to support vulnerable families in non-institutional ways (UNICEF, 2012). According to Mulheir & Browne (2007), deinstitutionalization isn't just the removal of children from institutions. It is rather a systematic, policy driven change, which results in considerably less reliance on residential care and an increase in services aimed at keeping children within their families and communities.

According to Dozier and colleagues (2012), a historical event contributing to the eventual decline of institutional care in the United States was the first White House Conference on Children in 1909 when Child welfare professionals from around the country met and agreed on several policies including those applicable today. Specifically, three important points were endorsed: (1) children should be raised by their own families; (2) when it was necessary to remove children from their families, the settings in which they were cared should be other families' homes or resemble families as much as possible; and (3) no child should be removed from parental care because of poverty alone.

These policies led to a fast reduction in reliance on institutional care. By the 1970s, orphanages had almost disappeared. Few time before the above historical conference, in the mid-20th century, a series of studies had begun to highlight the harm caused by institutional rearing. From the 1950s onwards, many other countries began to recognize that however efficient they may have been in the past, continued use of institutions did not provide appropriate care for children who had been separated from their families (McCall et al., 2014). The emergence of this evidence contributed to

a move away from institutional care beyond USA including Western Europe but countries in the Soviet bloc and China did not move at the same pace (Dozier et al. 2012). Furthermore, the communist ideology not only destigmatized institutional rearing but in some cases encouraged it (Ismayilova et al., 2014). Deinstitutionalization has been taking place in Eastern Europe since the fall of communism and is now encouraged by the EU for new entrants (Engle et al., 2011).

Very recently, a series of international instruments recommend practices to stop the expansion of institutional care settings for children without parental care and rather promote deinstitutionalization by improving family-based alternative care. Those instruments include The United Nations (UN) Guidelines for the Alternative Care of Children (UN General Assembly, 2010); the Common European Guidelines on the Transition from Institutional to community-based Care (European Expert Group on the Transition from Institutional to Community-based Care, 2012); the European Commission recommendation on investing in children to break the cycle of disadvantages (EUROPEAN COMMISSION, 2013) and the Convention on the Rights of the Child (United Nations General Assembly, 1989).

Since then, deinstitutionalization policies have been introduced in many countries all-over the world including Africa and Asia although often at individual institutions rather than state-wide (Ainsworth & Thoburn, 2014).

4.2.2 Psychological outcomes

The effectiveness of placing institutionalized children in stable families has been examined experimentally (Smyke et al., 2010). According to Bakermans-Kranenburg, Van IJzendoorn, & Juffer (2008), placing children from institutional care into families can be seen as the most significant intervention possible for any human condition and doing so early is better. Once in a family, relative to children who remain in orphanage care, post-institutionalized children have demonstrated steep improvements across developmental domains including weight and head circumference, as well as showing evidence during childhood and adolescence of improvement on cognitive testing (Tottenham, 2012).

Juffer & van IJzendoorn (2007) found that adopted children had lower self-esteem than their non-adopted peers. Juffer and van IJzendoorn said that adopted children were at risk of low self-esteem

because of conditions they may have endured from the consequences of neglect, abuse and underfeeding in institutions before adoption. In addition, they have to cope with their adoptive status which often includes difficulties associated with the lack of similarity to their adoptive parents.

However, in their study Smyke et al. (2010) found that placement in foster care enhances quality of attachment among young institutionalized children. Similarly, Stellern, Esposito, Mliner, Pears, & Gunnar (2014) examined children adopted between 15 and 35 months from institutional care twice during their first year postadoption and compared with children of the same age reared in their birth families. Post-institutionalized children froze more in fear vignettes and were less positive in both fear and positive vignettes than non-adopted children. They concluded that children exposed to early institutional neglect exhibit emotional biases that are consistent with their previously demonstrated risk for the development of internalizing disorders.

In the same logic, Donkoh, Montgomery, & Underhill (2006) reviewed studies aiming to evaluate the improvement of outcomes of deinstitutionalized children supported through independent living programs. Collectively, these studies showed that some post-institutionalized children improved in educational, employment-related, and housing-related outcomes.

The investigation of psychiatric outcomes in young children with a history of institutionalization conducted by Bos et al. (2011) indicated that enhanced foster care minimize or even reverse the negative effects of early institutional care on psychological outcomes including attachment, emotional reactivity and psychiatric symptomatology. However, they noted that recovery is not uniform across all children.

A meta-analysis reviewing behavior problems and mental health of international adopted children found that post institutionalized children show fewer internalizing and externalizing behavior problems than children adopted domestically. However, Tottenham (2012) noted that the literature with regard to how robust the findings about internalizing problems during childhood is mixed as some studies fail to find evidence of internalizing problems. A large epidemiological study of Gunnar & Van Dulmen (2007) has found that internalizing and externalizing behaviors were

significantly elevated in children who had been adopted after 24 months but not in those children adopted earlier.

In conclusion, relative to children without a history of institutional care, post-institutionalized children are at high risk for exhibiting a number of developmental delays when first deinstitutionalized. Although remarkable, the catch-up may not always be complete. As summarized by Tottenham (2012), there can be for example areas of behavior that are less amenable to change, and often these behaviors lie in the emotional domain including difficulties in intimate social attachments, emotion regulation, and interpretation of facial expressions. A related but independent behavior termed “Indiscriminate friendliness” described previously is an example of a very common related but independent behavior.

4.2.3 Cost effectiveness

Institutional care is often justified by erroneous data on the cost of residential services in comparison with family based care (Menashi, Behan, and Noonan, 2012). The preference of using family-based care oriented investments, the negative impact of institutionalization demonstrated by research and considerable financial cost of care based on institutions have all played an important role in promoting deinstitutionalization programs in different countries (Colton and Roberts, 2006). For this, the United Nations and the European Union among others, recommended to the states to ensure that all children have a chance to grow in the family (United Nations, 2009).

However, the analysis of childcare costs in Romania, Ukraine, Moldova and Russia showed that the institution is six times more expensive than family based care (Carter, 2005). Considering other expensive related to services involved by institutionalization, Polnay; Glaser & Dewhurst (1997) concluded that institutional care is about seven times more expensive than foster care. Institutions are more expensive than the alternative family, in part because 33% to 50 % of paid staff in institutions do not have direct contact with children (Vettor and Dejanovic, 2006). On the other hand, interventions in families are less expensive because a single professional pro-family that is assisted by the biological families can be used for several children at the same time (Gibson, 2003). However, institutional children care is not adapted to allow the involvement of the family (Barth, 2005) because institutions often lack the personnel to carry out this collaborative work with

families.

Moreover, many governments are discouraged by the potential costs of financing child protection services based on the family and the community because the costs of setting-up an effective and controlled family-based care. The transition can therefore also present real financial difficulties. For example, to pay for the recruitment, training and monitoring of staff to support children and families at risk involve significant structural costs. However, these can be compensated by the reduction of long-term costs for the state. According to Save the Children (2009), the children, once in a family, grow and become healthy, productive adults who are less dependent on state services for children leaving institutions.

4.2.4 The process of deinstitutionalization

4.2.4.1 Overview

Deinstitutionalization dictates having a full range of care options available for children in need, with priority placed on care within families. In addition to alternatives, deinstitutionalization consider strengthening the family and preventing unnecessary separation. the spectrum of family care alternatives includes reintegration with biological parents, kinship care or reunification with extended family or relatives, foster care, guardianship, and adoption. In the following we briefly describe each of the above options. At the level of the concerned child, deinstitutionalization interventions comprise child assessment, family tracing, matching the child and family, preparation of both child and family, moving the child into the new placement and post-placement interventions or follow-up (European Expert Group on the Transition from Institutional to Community-based Care, 2012).

4.2.4.2 Reintegration with biological parents

Reintegration is the process of moving a child back to his or her family of origin when children have been removed from the care of their parents in case it is safe, possible and appropriate for the child (Mulheir & Browne, 2007) . Reintegration is not done only for children who have been placed into orphanage but for all children outside of parental care, including foster care, or living on the street. Reunification is a process including preparation of the child and the family through many

different steps followed by a postplacement monitoring and support (Bunkers et al., 2014). During and after the reunification process, the root causes why the child was initially separated from the family is addressed (Parish, 2005).

4.2.4.3 Extended family

Where a child cannot be raised by his or her birth parents, in consultation between experienced social workers and their managers, the next best alternative may be the extended family, an alternative also called care with relatives or kinship care (Mulheir & Browne, 2007). This is frequently informal in nature but is a long-standing and culturally acceptable mode of care for children (Bunkers et al., 2014). Though decisions regarding family placement should be considered carefully, particularly in situations where the child has been abused by the birth family, care by relatives offers the benefits of a family environment and supports the continuation of important familial, communal, and cultural ties which reduces the trauma of separation from the birth parents (Bunkers et al., 2014). To minimize bias, exclusion, or discrimination from caregivers and community members or the risk of neglect, abuse, or exploitation, caregivers have to have access to the appropriate material and social support from communities and local officials (Parish, 2005). Several studies have shown that the closer the biological ties of the child and caregiver, the more secure and less discriminated against the child feels, with care by grandparents or older siblings reporting the best findings (Bunkers et al., 2014).

4.2.4.4 Foster care:

Foster care refers to full-time care, provided by a non-related family and vary greatly from one country to another and takes diverse forms including emergency foster care, short to medium term foster, long-term foster care and specialist foster care (Mulheir & Browne, 2007). Formal foster care is typically authorized and arranged by an administrative or judicial authority, which also provides oversight to ensure the best interests of the child are being met (Bunkers et al., 2014). Informal fostering has a history in many countries such as when a child is placed in the care of a trusted neighbor or community member (Foster, 2000). To ensure that children and caregivers receive necessary support and access to services, it is recommended that processes and procedures be established as benefits and risks of foster care are almost similar to the one of extended family

(Bunkers et al., 2014).

4.2.4.5 Adoption

Adoption is a process whereby a person assumes the parenting of another, usually a child, from that person's biological or legal parent or parents, and, in so doing, permanently transfers all rights and responsibilities, along with filiation, from the biological parent or parents (Wikipedia, n.d.). Once all attempts to return the child to the birth or extended family have been exhausted, adoption can provide a permanent family. Mulheir & Browne (2007) noted that adoption is an extreme measure in that it alters the child's identity and children are most likely to succeed if there is continuity in terms of language and culture. Research has demonstrated that an adoptive family environment can support improved developmental outcomes for children, especially those coming from orphanages (Bos et al., 2011). However, Mulheir and Browne (2007) noted that placing children in a family environment involves matching the needs of the child to the adopting family, which is common practice in domestic adoption whereas international adoption works on the principle that the adopting parents select the child to satisfy the needs of the parent, rather than the needs of the child, which is unlikely to be in the best interests of the child. Many efforts have been made to ensure that strong policies and procedures and appropriate government oversight are in place to ensure that intercountry adoptions are occurring in alignment with international norms and standards (Ministry of Gender and Family Promotion & Hope and Homes for Children, 2012).

4.2.4.6 Independent living programs

Donkoh et al. (2006) described independent living programs as intervention designed to provide skills to young people living care that will limit their disadvantage and aid them in their successful transition into adulthood. Donkoh and colleagues (2006) said that independent living programs requires social support and life skills preparation and provide care leavers with skills that will help them succeed despite the absence of family support.

5. Specific context of Rwanda

Rwanda presents an important example of compounded adversity wherein genocide, severe poverty, and HIV/AIDS have had devastating consequences for the functioning of families and the

larger community; and damaged the social system that once facilitated healthy child rearing. The next lines concentrate on describing this particular context. The lines summarize the following 6 points: country profile, demographic change and its impact on social fabric, demographic change and its impact on social fabric, child care crisis, characteristics of children in institutions and child-care system reform.

5.1 Country profile

Rwanda is a small landlocked, East African densely populated country, with a population of approximately 11.5 million inhabitants living within 26,338 km². Administratively, Rwanda is divided up into 30 districts, which are further divided into 416 sectors, 2,148 cells and 14,843 villages.

Rwanda has made significant gains in health, education and economic growth since 2008. In 2012, the gross domestic product (GDP) grew by 8 per cent and is projected to grow 7.5 per cent in 2014 (National Institute of Statistics of Rwanda [NISR], 2015). From 2005–2011, poverty declined from 55.7 per cent to 44.9 per cent (National Institute of Statistics of Rwanda [NISR], 2015). However, children still bear the brunt of poverty with 60 per cent of Rwandan children living below the poverty line (Better Care Network, UNICEF, PEPFAR, & USAID, 2015).

There have been significant reductions in infant, child and maternal mortality and a universal health insurance scheme has been set up. These improvements have put Rwanda on track to achieve many of the Millennium Development Goals (MDGs). Despite these gains, Rwanda is still one of the poorest countries in the world, ranking 163th out of 187 in the 2015 Human Development Index (United Nations Development Programme [UNDP], 2015).

Nonetheless, 21.7 per cent, 2.2 per cent and 10.6 per cent of children under 15 in Rwanda live with, respectively, their mother only, father only or either parent (National Institute of Statistics of Rwanda [NISR], 2015). The proportion of children aged 0–2 living with both parents is 75 per cent while it decreases to 54 per cent for children aged 10–14 years old. Geographic difference is also notable within Rwanda. The Southern region reports 59.2 per cent of children living with both parents, Kigali with 64.1 per cent and the Northern region with the highest, 67.6 per cent (National Institute of Statistics of Rwanda [NISR], 2015).

Compared to other countries in the region, Rwanda has an average double orphan rate. The rates of Ethiopia (0.6 per cent) and Mozambique (0.4 per cent) while Zimbabwe (4.7 per cent) and Zambia (2.7 per cent) have the highest double rates. Rwanda's percentage (10.2 per cent) of children under 15 living in a household who have lost one or both parents is about average, higher than Madagascar (6.2 per cent) and Ethiopia (7.8 per cent), but well behind Zimbabwe (18.4 per cent), Uganda (13.4 per cent) and Zambia (13.1 per cent), which have the highest (Better Care Network et al., 2015).

5.2 Demographic change and its impact on social fabric

Demographic changes in 1990s prove that family structures ceased to exist altogether in their previous form. Indeed, the 1990s, Rwandan society experienced profound upheaval that dramatically changed the socio-demographic profile of the country. In 1994 genocide, over a million Tutsi and moderate Hutu civilians died and 3,000,000 were internally or externally displaced (World Bank, 2004). Following the genocide, about 2,000,000 people fled into exile, primarily to the Democratic Republic of Congo and Tanzania. In the aftermath of the Genocide, the victory of the Rwandan Patriotic Front heralded the return of almost one million Rwandan Tutsi diaspora in exile. In 1996, the country witnessed the massive forced repatriation of over one million of refugees that fled after Geocide (Jayaraman, Gebreselassie, & Chandrasekhar, 2009). The country became culturally diverse with in-migrants from neighboring countries.

Nevertheless, the 1990s and few years later was characterized by a demographic boom which has an impact on family and socio fabric. The total fertility rate (TFR) declined from 8.5 in 1983 to 6.2 in 1992 and then marginally to 6.1 in 2005 (RDHS 2006). In 1999, rural population density per square kilometer of arable land was around 901 while it was 270 in 1989 and 61 in 1934 (Jayaraman et al., 2009). With increased pressure on land there was an increase in land disputes and the social fabric was affected. Therefore, children tend to stay longer and longer with their parents and delay their marriage to set up an independent household for lack of land and *inkwano*. Traditionally, the groom's side of the family pledged gifts to the bridegroom's family, a custom known as *inkwano* (Jayaraman et al., 2009).

In a study of André and Platteau (as cited in Jayaraman et al., 2009), roughly two thirds of the couples have been married without inkwano. Such marriages are considered illegitimate. Consequently, children born to such couples are vulnerable since their lineage is questioned and denied access to land.

In addition, following population displacement including return migrants or refugees from and to neighboring countries, an increase number of broken marriages, separated or divorced women, wives under polygamous arrangements, widows which in turn result to vulnerable children, orphans, children whose father has remarried, etc.

Following the 1990s war and Genocide, a shortage of eligible men of marriageable age could have led to marriage and family atypical conditions. The sex ratio declined from 93 men for 100 women in 1992 to 87 men for 100 women in 2000 and was 88 men for every 100 women by 2005 (Jayaraman et al., 2009). Smith (1998) noted that 70% of Genocide survivors are women. Post-genocide, female-headed families accounted for one-third of households compared to a quarter in pre-genocide times and over 100,000 adults, mainly men were in detention on charges of genocide (Veale & Donà, 2003). The above described situation is assumed to increase the rates of single mothers and children whose fatherhood is denied. The likelihood for those children to be institutionalized is higher.

Last, due to 1994 genocide and HIV and AIDS, Rwanda had one of the highest numbers of child-headed households in the world for many years (Dona, Kalinganire, & Muramutsa, 2001). By 2010, the prevalence of children who had lost both parents had decreased to 1.1 per cent whereas the number of Rwandan children living in a household who have lost one parent is 9.1 per cent (Better Care Network et al., 2015).

5.2 Traditional Care

Rwanda has a strong tradition of informal child-care practices. According to 2015 Rwanda Demographic and Health Survey (2015), 16.8 per cent of households care for a 'foster' child. In this case, a 'foster' child is defined as a child living in a household without mother or father present. The percentage of children under 15 who lost both parents increased from 0.7 per cent in 1992 to

just approximately 5 per cent in 2000 following the 1994 Genocide in Rwanda (Better Care Network et al., 2015).

Prior to the war and genocide, orphans and unaccompanied children generally remained within the extended family environment (Dona et al., 2001). Indeed, in Rwandan culture, though family is defined by blood relations, close friends may also become members of the family. To establish lifelong friendship between families Rwandan used to use a practice known as “*Kunywana*”, which means “to cut and drink blood” (Dona et al., 2001). Punishment from nature would follow if the agreement were broken. The exchange of a cow has become the symbol of long lasting union between families in recent times. Traditionally, the care of children is carried out by family members in the wider sense of the word. Extended family used to temporary care of children in case of need. It’s common to have children go live with relatives or family friends in order to have access to education or to help them with house-chores particularly for girls. The father’s side of the family is traditionally responsible for children without one or both parents in line with the patriarchal nature of Rwandan society.

Depending on the age of the child, and on whether it is the mother, father or both parents who are deceased, other types of care arrangements are possible. If the father dies, for example, young children remain with their mother while the paternal uncle will arrange dowry for girls or inheritance for boys at later stage. In case the mother remarries, older children may go to live with the family of the paternal uncle (Dona et al., 2001).

Traditional care arrangements became fragmented by death, displacement, conflicts and modernization. Since the genocide, the numbers of orphans, separated children and child-headed households have placed enormous strain on these systems of care (Veale & Donà, 2003). Rwandan society became then unable to absorb the rapid increase in numbers of separated and unaccompanied children.

It is worthy to note that in the Kinyarwanda language, a specific expression is used to allude to being received or welcomed in a family” without any specific reference to the tie of the child with family: “Kwakirwa mu muryango”. If one adds “utari uwa bene wabo” or “utari uwabo”, it refers to be fostered by outsiders, meaning a family with whom there are no blood ties (Dona et al.,

2001). Fostering, especially organized fostering, came to be understood as a care arrangement for unaccompanied children with unrelated families (Parish, 2005). Fostering can be informal/spontaneous or formal/organized. Informal fostering occurs when a child is taken into the care of a family and no outside party is involved in making this arrangement.

5.4 Child care crisis

Before Genocide, 37 orphanages were catering for about 4 800 children in Rwanda (Dona et al., 2001). Residents were babies born of unmarried mothers or orphans of both parents. Orphans of both parents might have had relatives in the area but were either too poor or unwilling to take care of them (Dona et al., 2001). Other placed children included a child whose mother had died in childbirth, children born from mentally ill parents or from a minor (Silva, 1995). Some poor parents used to place their children up to 5 or 6 years old so that orphanage can provide nutrition and health care during that period of major health risks (Silva, 1995). In these cases, parents used to contribute to the child's care in orphanage.

The situation began to change around 1985, with the growing number of AIDS orphans (Silva, 1995). During and soon after the 1994 genocide, a phenomenon of separated children became visible. Since then, the Government of Rwanda estimated that between 400 000 and 500 000 children were lost or became separated from their families (Silva, 1995). Depending on conditions and available resources, unaccompanied children were cared for in different types of environments. Inside Rwanda, the number of centers for unaccompanied children increased dramatically in the year following the genocide (Dona et al., 2001). While 37 orphanages catered for about 4 800 children before the genocide, 55 centers hosted 10 381 children soon after the end of the genocide, and their number reached its peak with 77 centers receiving 12 704 children in April 1995 (Dona et al., 2001).

Efforts have been made to reunify or foster children in families rather than to place them in residential care both inside Rwanda and across the border (Dona et al., 2001). The Government of Rwanda in collaboration with non-government organizations including International Committee of Red Cross (ICRC) and International Social Service (ISS), launched the national campaign “One child, one family” in 1996 which saw the placement of children through family tracing, organized

and spontaneous fostering. That emphasis on placing children in families resulted in a decrease in the number of centers and numbers have gone back to pre-genocide figures. By April 2000, 37 centers were accommodating less than 5 000 children (Dona et al., 2001).

In addition, since the beginning of the war in 1990, Rwandan families had been sending their children to live with relatives and friends to ensure their survival (Dona et al., 2001). neighbors, friends and strangers amidst killings, perils and displacements used to receive unaccompanied children between April and July 1994. Other countries in Africa and Europe also received a number of children either in foster care, in centers or with families. Out of 93 480 unaccompanied Rwandan children in the Great Lakes Region, 28 300 were in foster families inside Rwanda (Silva, 1995).

It is important to mention an issue highlighted by Thurman et al., (2008) that some Rwandan adults believe local authorities or non-governmental organizations (NGOs) are primarily responsible for the care of orphans. Some Rwandans fostered children with expectations of receiving compensation from donors, NGOs, or the government, which is one reason of high fostering rates occurred in the years following the genocide (Dona et al., 2001). In addition, Thurman et al., (2008) raised the issue of some parents abandoning their children at orphanages, believing the shelter could provide better care.

5.5 Characteristics of children in institutions

Mostly established by faith based organizations, the most recent institution was opened in 2010 while the oldest were opened in 1950s. In 2012, a total of 3323 children and young adults were reported by Ministry of Gender and Family Promotion (MIGEPROF) & Hope and Homes for Children (2012) to be residing in 33 institutions in Rwanda in 2012 including 55% boys and 45% girls. The survey did not include centers for street children, institutions for disabled children or children living in prisons with their parents. Only institutions registered by MIGEPROF as “orphanages” were assessed. Only the institutions themselves currently hold records of individual children.

According to the same report, the age range was 0-43 years, with 11.0% aged 0-3 years and a quarter of residents were in fact young adults aged over 18. At the time of placement, 37.5% of children were aged 0-3 years. At the time of the study, 30 per cent of the children living in

institutions had already spent more than 10 years there. This study also found that one third of children in residential care were placed there by a by their parents and relatives or by local authorities, with only 11 per cent placed there by their parents. Regular contact with parents or relatives were possible for 33.6% of children whilst over half of children resident in institutions have no contact with their parents, relatives or other significant adults.

The most common reasons for placement of children in residential care, provided by the directors of the facilities, included death of mother or both parents, abandonment and poverty (Ministry of Gender and Family Promotion & Hope and Homes for Children, 2012). A further analysis of evidence from detailed child and family assessments showed other root causes of placement in institutions. Attractiveness of services offered by institutions, lack of family cohesion, unwanted pregnancies; circumstances of female domestic workers; lack of knowledge concerning the damaging effects of institutionalization; family conflicts or marriage breakdown and death of parents (Better Care Network et al., 2015).

At the time of the survey, the occupancy of the institutions ranged from 8 to 566 children cared by a national total of 599 staff members, aged between 15 to 75 years. Only 8.9% of orphanage staff had completed higher education whilst 51.1% and 27.7% have completed respectively primary and secondary school. The sources of funding included a combination of MIGEPROF funding and private donations. Calculations of the average cost to raise a child in an institution resulted in 5 USD at the time of the survey which can cover the cost of a standard family of six members (Ministry of Gender and Family Promotion & Hope and Homes for Children, 2012). In the beginning of 2014, original number of children in care had been reduced from 3,323 (in 2012) to 1,457 in March 2014 following deinstitutionalization program undertaken by the Government of Rwanda. The following lines describe this program.

5.6 Child-care system reform

In 2012 Rwandan Cabinet of Ministers approved a Strategy for National Child Care Reform. One of the aim of the strategy was to promote positive Rwandan social values that encourage all Rwandans and their communities to take responsibility for vulnerable children(National Commission for Children, 2014). The strategy expects to close down and transform all orphanages

as an entry point to building sustainable child care and protection systems. The strategy details how children living in institutions should regain their right to live in a loving, safe and supportive family environment. To ensure successful reintegration of children, the National Commission for Children was assigned a task of overseeing the creation of a system of alternative care and the transition towards a strengthened child protection system (Bette Care Network et al., 2015).

Since then, professionals including social workers and psychologists were trained and dispatched in Districts, prioritizing districts where residential care facilities are being or will soon be closed. The mandate of those professionals was to implement the child care-reform strategy including deinstitutionalization, prevention of separation and developing alternative care to replace institutions (National Commission for Children Rwanda, 2012). Those professionals were given a pre-service and in-service training by Hope and Homes for Children, a non-governmental organization experienced in deinstitutionalization globally, UNICEF, and Tulane University. A joint training curriculum was developed for that purpose (Better Care Network et al., 2015).

The deinstitutionalization process involved the following activities: Assessment of children and families, including family tracing; developing individual care plans, placement decisions and preparation of children and families; Recruitment, training and preparation of alternative families (including foster and kinship care); Establishing a child-care network to prevent abandonment and institutionalization and to support family-based alternative care; Gradual transition of children into family placement or independent living; Post-placement monitoring and support; and development of community-based services aiming at family strengthening and child protection (National Commission for Children Rwanda, 2012).

There is recognition of the importance of prevention as a critical part of deinstitutionalization and of the larger child-care reform. In several districts and sectors across the country, the pilot deinstitutionalization project of Hope and Homes for Children established child-care networks to function as gatekeeping mechanisms (Better Care Network et al., 2015). In addition, informal alternative care was reinforced. For example, there are “thousands” families known as “Malaika Mulinzi” (‘Guardian Angel’) across Rwanda, an initiative that works to promote, support and recognize informal caregivers. Emergency or short-term foster caregivers were recruited and trained and are ready to receive a child in case of abandonment.

Some residential child-care facilities that have closed or are in the process of closing developed plans to transform their services from residential care to ones that promote family-based care and community engagement (Better Care Network et al., 2015).

Although, the government owned and committed to the reform process through a single well-planned implementation framework, some institution managers and their donors resisted to the process. There were also difficulties in tracing private donors financing institutions to ensure all resources are re-allocated to support children and families in the community.

6. Research questions and hypothesis

In this section, general problem and hypothesis is first presented for the overall thesis, followed by three specific research problems and hypothesis. Each specific research problem constitutes a separate study.

6.1 General research problem and hypothesis

Figure 1. shows a conceptual model resulting from the synthesis of reviewed theory. The conceptual framework describes the context from which emerged our research problem and research questions as detailed below.

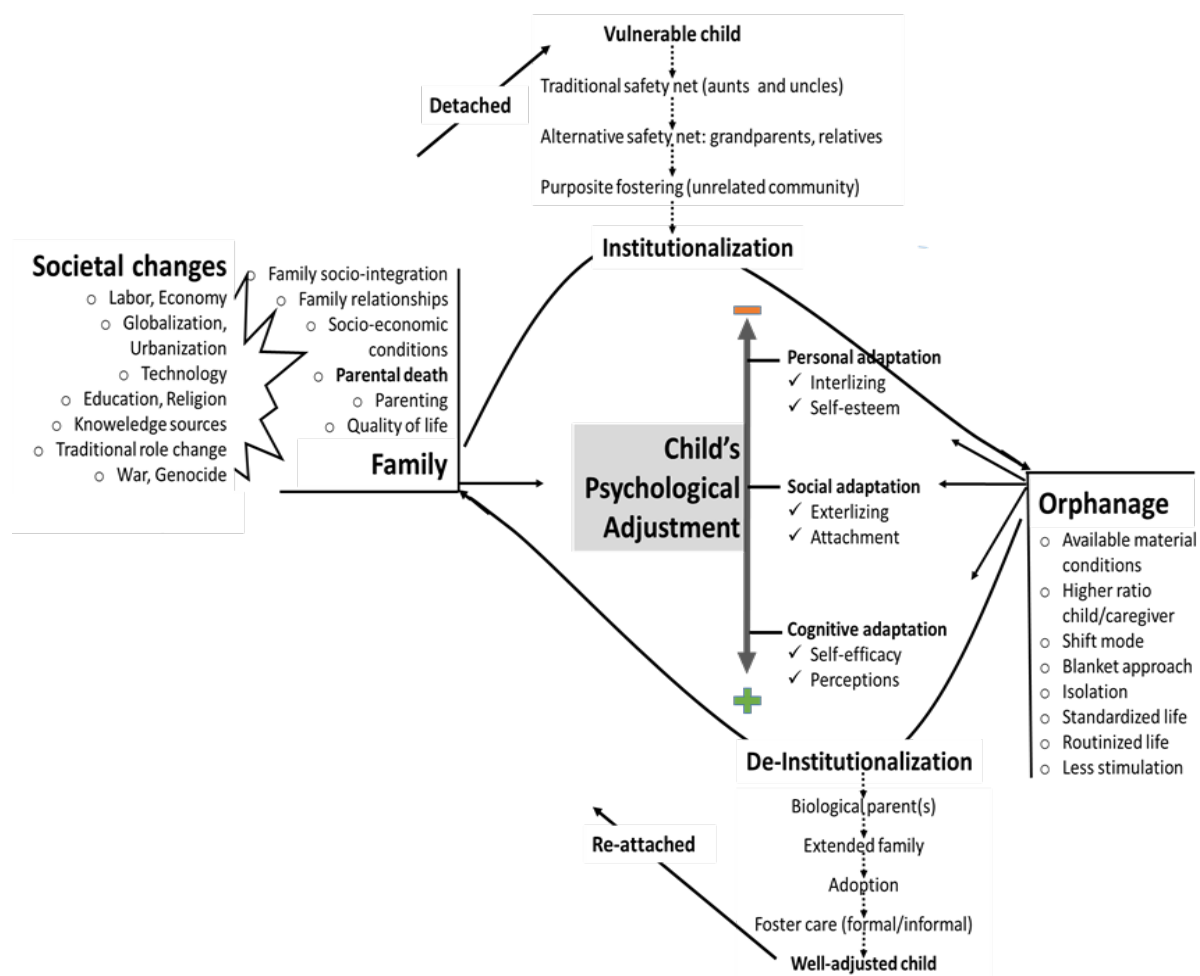


Figure 1. Theoretical and Conceptual framework of institutionalization-deinstitutionalization process and children psychological adjustment.

Indeed, traditionally, there was no such thing as an orphan in Africa because the sense of duty and responsibility of extended families towards other members was almost without limits (Foster, 2000). Vulnerable individuals, considered here as detached people from the family of origin, including orphaned children for example, were held in the social safety net independently of sufficient resources to care for existing members as represented in the Figure 1. titled Vulnerable child. Unfortunately, traditional family structure which used to serve as social security net for its members has been affected and changed over the years by what is named societal changes on Figure 1. Those changes include labor, Urbanization, globalization, cash economy, religion technology, and in particular context of Rwanda Genocide, war and HIV/AIDS. Those societal changes affected the family in its dimensions of relationships, parenting, family social integration, economy and the perceptions of the quality of life which, right now is mostly evaluated in comparison with western life styles.

In spite of all of those social changes, the most cited triggering event for the family to be separated with his/her child is the death of one or both parents. More painful will be seeing living parents being separated from their children. A child detached from family of origin due to its impossibility to remain with him/her ends up in institution if he/she slips through this safety net. Other vulnerable situation he/she may ends in include child headed household, street children, domestic workers or other work. In institution, the nature and structure as presented in Figure 1. The part labelled orphanage, are different from family environment. Despite the best intentions of the institution, the care children receive in an orphanage cannot possibly mimic the care provided in a family environment. Even in the best of circumstances, institutional care is suboptimal in that the caregivers are staff members, rather than parents, who rotate shifts and, due to the devastatingly low caregiver-to-child ratio, are under great pressures to cater to the physical needs of a large number of children (Tottenham, 2012). Attachment theory, on which this study is based, prove the consequences of a such environment on children's development.

Numerous studies have provided evidence that institutionalization is harmful to the child's development due to the above described structure. In contrast, deinstitutionalization, try to remedy family dysfunctions and reintegrate the family. Once in a family, compared to children who remain in orphanage care, post-institutionalized children have demonstrated steep improvements across developmental domains including weight and head circumference, as well as showing evidence

during childhood and adolescence of improvement on cognitive testing (Tottenham, 2012). Deinstitutionalization aims at re-attaching the child to the family. Deinstitutionalization options include, as stated in Figure 1. the part labelled as deinstitutionalization, reunification with birth family, kinship care, foster care or adoption.

This described process of institutionalization and deinstitutionalization involving child removal from home and the transition to an institution and then getting him/her back home embodies a whole range of stress factors for the child and pose enormous challenges for the child's adjustment resources (Shechory & Sommerfeld, 2007). Though, children in institutional care show delays and maladaptation in various domains of development, not every child is affected in the same way and to the same degree (van IJzendoorn et al., 2011). The way these difficulties show themselves will vary with respect to the intensity of the experiences and the circumstances that follow the events (Manso, García-Baamonde, Alonso, & Barona, 2011).

Psychological adjustment, showed in the center of Figure 1. has been assessed with different outcome variables including the balance between positive and negative affect (Keyes et al., 2002). In the present thesis, theoretical operationalization resulted in its three dimensions including personal adaptation, social adaptation and cognitive adaptation. Personal adaptation is measured by internalizing behavior and self-esteem, social adaptation is measured by externalizing behavior and attachment while cognitive adaptation is measured by self-efficacy and children's perceptions on institutionalization process.

The general aim of this thesis was to evaluate the influence of that process of institutionalization-deinstitutionalization on children's psychological adjustment in the context of Rwanda. A further aim was to assess the influence of the living status of biological parents. It was expected that institutionalization would affect negatively the child's psychological adjustment while deinstitutionalization would rather restore or improve the child's psychological adjustment. Having living parents was expected to be a protective factor while not having them would be a worsening factor.

Specifically, this thesis pursues three specific aims. Exploration of institutionalized children's experience, investigate the influence of biological parental living status on their psychological

adjustment and evaluate the conditions and effectiveness of deinstitutionalization in improving children's psychological adjustment. Each aim constitutes a separate study whose research problem and hypothesis are presented below.

6.2 Study 1: Exploration of institutionalized children's experience

6.2.1 Research problem

“How can I be an orphan next to a million of “parents”? This question was asked by a 10-year-old boy, placed into an institution after being abandoned by his family. The situation of this child is most likely to be similar to the one of 3323 children living in the so-called “orphanages” in Rwanda (Ministry of Gender and Family Promotion and Hope and Homes for Children, 2012) and approximately eight million worldwide (Pinheiro, 2006). That initial question opened a series of questions related to institutionalization experience, questions that existing literature would not entirely satisfy.

Indeed, previous studies provided convincing evidence that institutional care is detrimental to the cognitive, behavioral, emotional, and social development of young children (Marshall & Fox, 2004; Roy & Rutter, 2006; Smyke et al., 2012; van IJzendoorn et al., 2011; Zeanah et al., 2005). Although concerns have been raised regarding the care received in such facilities, very little is known about children's perspectives on their own experiences residing in these institutions (Morantz & Heymann, 2010). The voices of children have been conspicuously absent from the debate. The majority of reports on institutional care including conceptual definition as well as the operationalization are from an adult perspective relying on adult interviews (Rauktis et al., 2011). In addition to that relative absence of the children perspective in child welfare research, there have been no extensive researches to analyze the impact of such descriptions on children's wellbeing.

According to Ainsworth & Thoburn (2014), understanding the impact of language and terminology on debate and analysis may make it easier to understand and compare services across national boundaries. Therefore, children's narratives offer insight into ways in which service developers and providers can better meet their complex needs (Morantz & Heymann, 2010).

On the basis of these studies, we formulated the following research questions constituting the first

study. The general aim of this first study is to explore the lived experience of institutionalized children in Rwanda.

6.2.2 Research questions

1. How do institutionalized children perceive circumstances that led them to be placed into orphanage and how they describe their experience in orphanage?
2. What influences those perceptions have on how institutionalized children adapt to orphanage life and describe themselves?

Only institutionalized group were involved in this qualitative study. Cross sectional data were collected at initial measurement time point (T0) from focus group discussions, which are semi-structured groups. Focus groups were used because they sample the experiences of a wide variety of subjects in a relatively easy fashion (Auerbach & Silverstein, 2003). Data were analyzed following grounded theory, an inductive methodology that led to the emergence of conceptual categories and hypothesis. Results of this first study are discussed mainly in line with their cultural meaning.

6.3 Study 2: Institutionalization and parents living status

6.3.1 Research problem

Globally, it is estimated that approximately 153 million children have lost a mother or a father; 17.8 million of them have lost both parents (Pinheiro, 2006) including more than 12 million orphans in sub-Saharan Africa (Morantz & Heymann, 2010). Most of these children are absorbed by traditional social security net (Foster, 2000). For example, a study summarized by (Bunkers et al., 2014) illustrated that approximately 95% of children directly affected by AIDS by having one or both parents who are living with or have died from the disease, continue to live with their extended family. However, a number of orphans and other vulnerable children slip through the traditional social security net and are institutionalized.

Though institutionalization represents a well-studied model of early adversity, little attention has been paid to the fact that all institutionalized children are not biological orphans. In general,

orphanage system is understood as the institutional care system for orphans (Ahmad et al., 2005), or for children with no surviving parents (Foster et al., 1995). Thus, all children reared in orphanage are called orphans whether they have or not biological parents. With regard to this widespread misconception about the 'orphan' status of children in institutions, (Save The Children, 2009) showed that in Central and Eastern Europe and the former Soviet Union countries only 2% of institutionalized children were true orphans. No biological orphan was institutionalized in western developed countries, and, in Africa, 10 to 41% were placed into orphanage though they have one or both parents. Globally, at least four out of five, among up to 8 million children placed in what are known as orphanages, have one or both parents alive (Browne, 2009b). Although, all institutionalized children are not orphans and although parental loss is one of the most extreme social deprivation a child can experience, little is known about the role of being or not orphan on the effect of institutionalization.

Overall research focusing on the effects of parental loss on children's and adolescent's psychological outcomes remain contradictory (McInerney-Ernst, 2008b). At one hand, studies demonstrated that bereaved children are more likely than their non-bereaved counterparts to develop psychiatric disorders (Atwine et al., 2005; Black, 1978), internalizing and externalizing distress as well as lower self-esteem and self-efficacy (Thompson et al., 1998; Worden & Silverman, 1996). At the other side, studies found that death of a family member was not related to the report of mental health problems nor to lower self-esteem (Behrendt & Mbaye, 2008; McInerney-Ernst, 2008a; Rheingold et al., 2004). Even worse, the majority of studies on the impact of parental death for childhood well-being have been conducted almost only among children who currently reside in the family with their surviving parent or another family member (Shaw et al., 2015).

In addition, most studies have focused on developed countries, and very little information is available regarding developing countries, with a particular lack of information from sub-Saharan Africa (Frimpong-Manso, 2013; Walakira et al., 2014). It cannot be assumed that the developed countries' definition of children's wellbeing outcomes are an appropriate framework for understanding individual, family, and community resources in developing countries (Betancourt, Meyers-Ohki, et al., 2011). For instance, regarding the effect of parental death, Thompson et al. (1998) revealed that externalizing distress was moderated by race, such that distress levels did not

significantly differ between bereaved and non-bereaved minority youth but did differ significantly among bereaved and non-bereaved nonminority youth. Also, some researchers have argued that institutionalization would have no significant effect on children coming from disadvantaged families, communities, or societies (Andersson, 2005; Barth, 2005; Carrà, 2012; Souverein, Van der Helm, & Stams, 2013). In this regard, Rwanda presents an important example of compounded adversity wherein genocide perpetrated against Tutsi in 1994, severe poverty, and HIV/AIDS have had devastating consequences for the functioning of families and the larger community; and damaged the social system that once facilitated healthy child rearing.

Based on the above mentioned gaps in existing literature, following research question and hypotheses were formulated to constitute the second study. The second study aimed at investigating the differences in psychological adjustment between institutionalized children and never-institutionalized children and investigate the influence of parents' living status.

6.3.2 Research question

What is the effect of institutionalization on children's psychological adjustment defined in terms of externalizing behavior, internalizing behavior and self-esteem in Rwanda and, how having living versus deceased biological parents influences that effect?

6.3.3 Hypotheses

1. (a) Institutionalized children have more externalizing behavior than non-institutionalized children. (b) Institutionalized children without parents have more externalizing behavior than institutionalized children with parents while there is no significant difference in externalizing behavior between non-institutionalized children with and without parents.
2. (a) Institutionalized children have more internalizing behavior than non-institutionalized children. (b) Institutionalized children without parents have more internalizing behavior than institutionalized children with parents while there is no significant difference in internalizing behavior between non-institutionalized children with and without parents.
3. (a) Institutionalized children have lower self-esteem than non-institutionalized children. (b)

Institutionalized children without parents have lower self-esteem than institutionalized children with parents while there is no significant difference in self-esteem between non-institutionalized children with and without parents.

To test these hypotheses, data collected at the second time (T1) were used. A cross-sectional comparison was made between the above mentioned two main groups and, further four groups: Institutionalized with parents, institutionalized without parents, never-institutionalized with parents and never-institutionalized without parents. Data were analyzed using analysis of variance controlling for age and participant's sex. Results are discussed in line with existing literature in the domain of effects of institutionalization.

6.4 Study 3: Deinstitutionalization effect and prediction of outcomes in family

6.4.1 Research problem

Institutionalization was often associated to the tradition in many Western countries since the Middle Ages. From the 1950s onwards, those countries began to recognize that however efficient they may have been in the past, continued use of institutions did not provide appropriate care for children who had been separated from their families (McCall, Groark, & Rygaard, 2014). At the moment when developed countries were initiating deinstitutionalization, developing countries "imported" institutionalization as a "modernity" in the late 19th century. In Rwanda for example, the first orphanage was opened in 1954 followed by 4 orphanages in 1979 (Ministry of Gender and Family Promotion and Hope and Homes for Children, 2012). Few years ago, some developing countries, including Rwanda, embarked the deinstitutionalization movement.

The effectiveness of placing institutionalized children in families has been examined experimentally (Smyke et al., 2010). According to Bakermans-Kranenburg et al. (2008), placing children from institutional care into families can be seen as the most significant intervention possible for any human condition. International instruments like the United Nations Guidelines for the Alternative Care of Children (United Nations General Assembly, 2010) recommend practices to stop the expansion of institutional care settings for children without parental care and rather promote de-institutionalization by improving family-based alternative care.

However, only few studies had as their objective to assess the medium and long-term impact of residential care (del Valle, Bravo, Alvarez, & Fernanz, 2007). The latter authors noted that studies on the processes of residential care have been much more frequent than those on its results. Little et al. (2005) highlighted the wide disparity of results and methodologies in studies about the outcome of deinstitutionalization. For example, in a meta-analysis of studies on self-esteem of transracial, international, and domestic adopted children, Juffer & van IJzendoorn (2007) found no difference in self-esteem between adopted children and non-adopted comparisons across 88 studies while in a set of 3 studies, adopted children showed higher levels of self-esteem than non-adopted, institutionalized children.

Moreover, child and family characteristics seem to play a role in deinstitutionalization outcome (Myers & Rittner, 2001). Yet, previous studies gave them a divergent importance. For example, concerning the age of the child, in their literature review Pine et al. (2009) found two groups of contradictory study results. One group, showed that being deinstitutionalized at younger age increased the likelihood of better child's psychosocial outcomes. Another, showed that those deinstitutionalized being older had better outcomes. Furthermore, most of institutionalized children have one or both parents alive. In spite of that, little is known about the impact of such background family characteristic on children's deinstitutionalization outcome.

In addition, most of studies have been conducted in western context. One of the few studies have been conducted in Ghana, one of developing countries that adopted shifting from an institutional-based model to a family and community-based one (Frimpong-Manso, 2013). However, the study focused on describing components, prospects and challenges of the reform process rather than studying children and family outcomes. In Rwanda, no scientific research has been conducted to assess children's outcome, especially their psychological adjustment following deinstitutionalization to our knowledge. Based on the above identified gaps in existing literature, the third study of this thesis aimed at evaluating the long-term outcome of institutionalization overtime and the effectiveness of deinstitutionalization while assessing also the effect of having or not living parents. A further aim of this third study was to evaluate the influence of child and family characteristics in developing children's better psychological adjustment in family. Following are research questions and hypotheses formulated for this prospective longitudinal comparative study.

6.4.2 Research questions

- A) After deinstitutionalization, do de-institutionalized children in Rwanda have better psychological adjustment defined in terms of less externalizing behavior, internalizing behavior, attachment problems and high self-esteem than children who remained in institution and the same as never-institutionalized children? Is there any additional influence of children's biological living status?
- B) Once placed into family, what is the predictive role of child and family characteristics like parenting involvement, family relations, quality of life, family economy, child's self-efficacy and time spent in family in developing better psychological adjustment defined in terms of less externalizing behavior, internalizing behavior, attachment problems and high self-esteem?

6.4.3 Hypotheses

(Note. A and B respond respectively to the first and second research question. Number 1 to 4 specify a separate dependent variable defining psychological adjustment).

A1. (a) Deinstitutionalized children have less externalizing behavior problems than children who remained in institution and the same level as never-institutionalized children. (b) After deinstitutionalization, externalizing behavior problems decrease among deinstitutionalized children while it remains the same for never-institutionalized children and for children in institution. (c) Non-orphans deinstitutionalized children have better outcome than deinstitutionalized orphans.

B1. For deinstitutionalized children and never institutionalized children, (a) parenting involvement, family relations, parental quality of life, family economy, child's self-efficacy, time spent in family and institutionalization status predict the level of children's externalizing behavior and specifically (b) parental quality of life affect children's externalizing behavior through its effect on family relations.

A.2 (a) Deinstitutionalized children have less internalizing behavior problems than children who remained in institution and the same level as never-institutionalized children. (b) After deinstitutionalization, internalizing behavior problems decrease among deinstitutionalized

children while it remains the same for never-institutionalized children and for children who remained in institution. (c) Non-orphans deinstitutionalized children have better outcome than deinstitutionalized orphans.

B.2 For deinstitutionalized children and never institutionalized children, (a) parenting involvement, family relations, parental quality of life, family economy, child's self-efficacy, time spent in family and institutionalization status predict the level of children's internalizing behavior and specifically (b) the effect of family relationships on child's internalizing behavior problems depends on the level of parenting involvement and perceived quality of life while controlling for the influence of family economic category and the time a child spent in family.

A.3 (a) Deinstitutionalized children have less attachment problems than children in institution and the same level as never-institutionalized children. (b) After deinstitutionalization, attachment problems decrease among deinstitutionalized children while it remains the same for never-institutionalized children and for children who remained in institution. (c) Non-orphans deinstitutionalized children have better outcome than deinstitutionalized orphans.

B.3 For deinstitutionalized children and never institutionalized children, (a) parenting involvement, family relations, parental quality of life, family economy, child's self-efficacy, time spent in family and institutionalization status predict the level of children's attachment problems and specifically (b) the effect of parenting involvement on attachment problems depends on family economic category while controlling for time spent in family.

A.4 (a) Deinstitutionalized children have higher self-esteem than children who remained in institution and the same level as never-institutionalized children. (b) After deinstitutionalization, self-esteem increase among deinstitutionalized children while it remains the same for never-institutionalized children and for children who remained in institution. (c) Non-orphans deinstitutionalized children have better outcome than deinstitutionalized orphans.

B.4 For deinstitutionalized children and never institutionalized children, (a) Parenting involvement, family relations, parental quality of life, family economy, child's self-efficacy, time spent in family and institutionalization status predict the level of children's self-esteem and specifically (b) parenting involvement affects children's self-esteem through its effect on children's self-efficacy.

Using analysis of variance and multiple regression analysis, the above hypotheses were tested. Data from two different measurement time point were utilized. Outcome variables forming psychological adjustment were externalizing behavior problems, internalizing behavior problems, attachment problems and self-esteem while child and family characteristics.

II. Methodological part

This part of the report describes the research methodologies used in the thesis. The intention is to enable readers to judge how reliable the study's findings are and to explore further the implications of the study's data. Participants and procedures to obtain data are first presented, followed by design, measures and how data were analyzed. It is important to note that for its subsection, an overall description is given meaning what is shared by all three studies followed by a description of what is specific to each study.

1. Participants and procedure

This section present first the general population targeted by the present study and how they were accessed to obtain data. Ethics, recruitment and data collection procedures are briefly presented. Then participants of each of the three studies are presented. For the first study, the section deals with participants of focus groups discussion. In the second study which was a cross-sectional study, a more detailed children's description is provided specifically in institution and in family. The last study, which was longitudinal, provide detailed characteristics of the sample and three groups formed following deinstitutionalization. In addition, the third study section describes included family characteristics.

1.1 Common aspects between studies

1.1.1 Participants' recruitment

In selected orphanages all children aged between nine and six-teen years were asked to participate in the study. The matching sample of never-institutionalized children was recruited in five elementary schools, located in the direct environment of the respective orphanages. Three orphanages and two schools included in this study are located in urban districts in Kigali City, and three are located in rural districts (one in each of the Western, Northern, and Southern provinces).

One hundred ninety-four children accepted to participate in the study. Thirty eight per cent of participants were recruited in urban area of Kigali (Kicukiro and Nyarugenge Districts) and 62% lived in rural areas of Rwanda (Kamonyi, Rubavu [rural] and Karongi [rural] Districts), which

takes into account the fact that a minority of Rwandan (i.e. approximately 20%) live in urban areas. Later on one orphanage, including 17 children was excluded from the sample as children moved from orphanage to a boarding school which didn't accept to participate in the study leaving a total number of participants to 177. Detailed sample description is provided in relevant study participants' description section.

Schools were chosen based on their proximity to the identified orphanages. The nearest school wherein the majority of the local institutionalized children were enrolled was identified as a "matching" school to that orphanage. All first contacts were made with either institution managers or headmasters of schools via physical contact. If authorization was given, the research team organized group sessions for youngsters and adults separately to present relevant information for participation in the study including free participation, the right to quit the study without any prejudice being caused to them as well as the anonymity of the use of data. Sample participants' information sheet and consent form can be found in the Annex 2.

Orphanage managers provided informed consent as legal guardians for the children living in their respective orphanages. In the family sample, parents (or other primary caregivers) signed the informed consent for their children. Orphanage managers and school headmasters contributed in the identification of potential children to participate in the study. Identified children also had to give their ascent to participate after an explication session.

Children were eligible for study recruitment if they were enrolled in the orphanage or matching school for at least six months, if they were aged between 9 and 16 years old, and able to communicate in Kinyarwanda. The lower age level was set as 9 years old as children at that age are able to communicate clearly both verbally and by writing. The upper level of age 16 was chosen because, beyond that age, the child undergoes major adolescent changes that could impact our findings. Children suspected by their caregivers or director to have learning, mental, or physical disabilities, as well as children who didn't wish to participate, were not included in the research sample.

When identified institutionalized children was deinstitutionalized, we got the contact information from professionals of National Commission of Children and Hope and homes for Children, which

are respectively public and non-governmental agency involved in deinstitutionalization program. Parents/Primary caregiver and their children were contacted and informed individually in this case. Though, orphanage managers had signed consent before deinstitutionalization, for deinstitutionalized children, parents/primary care givers who received children signed for the children when they accepted to remain in the study.

1.1.2 Procedure

The study was conducted in Rwanda. Permission to conduct this research was granted through the Rwanda National Ethics Committee (see Annex 3,4 and 5) and the Internal Review Board of the Department of Psychology of the University of Fribourg. Seven orphanages, registered at National Commission for Children in Rwanda, were chosen according to their availability to make up the experimental group.

During survey, a battery of questionnaires comprising all measures applied in the study as listed in table 3 was handed-out when participation was accepted and inclusion criteria were met. The instruments included in the provided document were filled out during group or individual session, any support or information was provided in case of need. Sessions with children lasted two hours at the most with a break after half the time was over. Sessions with parents, respectively principal caregivers, lasted between two and four hours. Conditions applied for focused group discussion are described in the coming paragraphs.

No risks were anticipated for the participation in the study and the data was coded without personal identifiers to allow confidentiality. Monetary transport compensation was offered to adults who had to travel in order to take part in the study.

1.2 Study 1: Exploration of institutionalized children's experience

Participants were recruited from the same general study participants. The same general inclusion and exclusion criteria applied to participate in focus group discussion, a data collection method for this study 1. Children had to accept a focus group discussion setting in order to participate.

Orphanages managers contributed in the identification of potential participants for the focus group

discussions. Children had also to give their assent to participate after an explication session. We excluded 1 orphanage from the list of six orphanages who consented to participate in the general study. In that orphanage children didn't give their consent to participate in a group setting. From those five orphanage, 37 children were included in the focus group discussions.

We conducted 1 focus group discussion in each of five orphanages. The average group size was 7 participants (min=5; max=10; SD=2.20). Demographic information is summarized in Table below.

Table 1 Demographic Information for Focus Group Discussion

Focus Group name	Area		Age category		Number of participants			Frequency of coded segments (N)
	Rural	Urban	9-12	13-16	Girls	Boys	Total	
FGD1Es	yes	no	no	yes	4	4	8	99
FGD2Ga	no	yes	no	yes	3	3	6	39
FGD3In	yes	no	yes	no	2	3	5	28
FGD4Vf	yes	no	yes	no	5	3	8	25
FGD5Si	no	yes	yes	no	6	5	10	23
Total	3	2	3	2	20	18	37	214

Note. FGD means Focus Group Discussion

1.2 Study 2: Institutionalization and parents living status

One hundred and seventy-seven participants recruited in Rwanda. As stated in general procedure, this sample included children from six orphanages (registered at National Commission for Children) and five matching primary schools, all located in different geographical areas. The sample included two groups: institutionalized and never-institutionalized children.

The institutionalized group consisted of 54 boys (58%) and 39 girls (42%). The never-institutionalized sample, which served as control group, consisted of 41 boys (50%) and 41 girls (50%). The overall sample mean age was 12.65 ($SD = 2.01$). The mean age was 12.96 ($SD = 2.00$) in institutionalized group and 12.30 ($SD = 1.98$) in never-institutionalized group. There were no significant differences in the gender distribution of the institutionalized and never-institutionalized children ($p = .683$).

Forty-six institutionalized children (49.5%) were non-orphans and 47 (51.5%) were orphans, while 54 (66.3%) were non-orphans and 28 (33.7%) were orphans among never-institutionalized children. In institution the number of orphans and non-orphans were not significantly different ($p = .761$) while in family, the number of non-orphans were higher than orphans ($p = .004$). It is assumed that these differences in sample size reflect real processes in the population. The sequential approach to adjust for unequal sample size was used.

For institutionalized children, the mean age at admission time was 4.26 ($SD = 3.94$) and varies from 0 to 14. The time spent in institution varies from 1 to 16 (mean $\pm SD$: 8.69 ± 4.28). Socio-demographic and clinical scores of participants in the Study 1 are summarized in Table 2.

Table 2 Socio-demographic and clinical scores for participants in study 1

<i>Variables</i>	Institutionalized						Non-institutionalized						Total	
	With parents (n=46)		Without parents (n=47)		Total (n=93)		With parents (n=54)		Without parents (n=28)		Total (n=82)		(N=175)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Sex (Girl/Boy)	20/26		19/28		39/54		25/29		16/12		41/41		80/95	
Age	12.70	2.11	13.21	1.86	12.96	2.00	11.80	1.84	13.30	1.90	12.30	1.98	12.65	2.01
Time spent in institution	9.09	4.37	8.30	4.20	8.69	4.28	-	-	-	-	-	-	-	-
Age at placement	3.60	3.67	4.91	4.13	4.26	3.94	-	-	-	-	-	-	-	-
Self-esteem	56.70	13.22	59.70	13.60	58.20	13.40	68.00	14.40	57.80	12.60	64.50	14.60	61.20	14.30
Externalizing	13.90	10.30	9.34	7.95	11.60	9.42	8.05	5.15	8.96	5.88	8.36	5.40	10.00	7.94
Agressive behavior	8.32	6.26	5.08	4.43	6.68	5.62	5.05	3.88	5.14	3.02	5.08	3.59	5.93	4.83
Rule-breaking behavior	5.58	4.43	4.25	3.90	4.91	4.20	3.00	2.31	3.82	3.55	3.28	2.80	4.14	3.70
Internalizing	9.63	7.27	9.50	7.95	9.56	7.58	10.94	6.25	12.23	9.80	11.37	7.60	10.42	7.62

1.3 Study 3: Deinstitutionalization effect and prediction of outcomes in family

One hundred and seventy-five among participants recruited in Rwanda as stated in general study procedure, participated in study 3. They are allocated in 3 groups: never-institutionalized children, de-institutionalized children and children who remained in institution. Eighty-four never-

institutionalized children including 42 girls (51%) and 41 (49 %) boys were children who have never been placed into orphanage and were living in family. Forty-five de-institutionalized children including 18 girls (40%) and 27 boys (60%) are children who were reintegrated into families from orphanage. Forty-six children in institution including 20 girls (44%) and 26 boys (56 %) were children who have been living in orphanage since the beginning of the overall research project. There were no significant differences in the gender distribution by institutionalization status, chi-square (2, $N = 174$) = 1.48, $p = .478$.

The overall sample mean age was 12.6 ($SD = 1.98$). The mean age was 12.3 ($SD = 1.97$) in never-institutionalized group, 13.3 ($SD = 1.95$) in de-institutionalized group and 12.61 ($SD = 1.91$). Never-institutionalized children were younger than de-institutionalized children, $p = .017$ but didn't differ significantly in age with children in institution $p = .999$. The latter group also don't differ in age with de-institutionalized children, $p = .264$. We excluded the influence of age differences in our sample by controlling for age in all relevant statistical analysis.

The sample was comprised of 99 (57%) non-orphans and 75 (43%) orphans. Among never-institutionalized children, 55 (66%) were non-orphans while 28 (34%) were orphans. Among de-institutionalized children, 17 (38%) were non-orphans whereas 28 (62%) were orphans. Among children in institution, 27 (59%) were non-orphans while 19 (41%) were orphans. The overall design supposed an unbalanced design, $X^2(2, N = 174) = 9.74, p = .008$. It is assumed that these differences in sample size reflect real processes in the population. The sequential approach to adjust for unequal sample size was used.

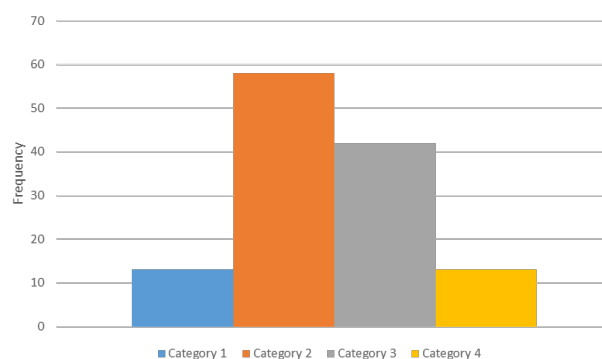


Figure 2. Participant's economic category according to the ubudehe categories (Government of the Republic of Rwanda, 2015)

To test the hypothesis about predicting psychological adjustment once placed into family, 128 children living in families meaning 83 never-institutionalized children and 45 de-institutionalized children were considered. The time spent in family for never-institutionalized children corresponds to their age while it corresponds to the time from reintegration date up to the data collection date for de-institutionalized children. The mean time spent in family in months for de-institutionalized children, was 7.22 ($SD = 3.67$) and varied from 0 to 18. Five participants deinstitutionalized by the first data collection were excluded from analysis involving the conditions of “before” versus “after” de-institutionalization as their data would not be considered as “before” deinstitutionalization while they had already been deinstitutionalized at that time.

As illustrated in figure 2, most of participants were coming from the second and third category. The classification is based on participative community categorization of family economy known locally as “*ubudehe*” categories (Government of the Republic of Rwanda, 2015). Four categories were explained in previous section.

2. Design

A general design of the study which was prospective longitudinal and cross-sectional comparative design is first shown. Then comes the specific design for each of the three study which was, focus group discussion, cross-sectional comparative and longitudinal respectively for the first, second and third study.

2.1 Common aspects between studies

This study used prospective longitudinal and cross-sectional comparative design. Figure 2. shows the general design of the study. At T_0 , the group of institutionalized children (study group) were recruited. At T_1 , the second group of never-institutionalized children (control group) were recruited. During the study period, professionals from National Commission for Children in Rwanda reintegrated children from institutions into families (Deinstitutionalization). This intervention resulted to the formation of a third group of de-institutionalized children. In each of the three groups represented on vertical axis of the Figure below, there were children with one or two living parents (non-orphans) and children with no living parents (orphans). The two groups are represented on the Figure by the level of visibility.

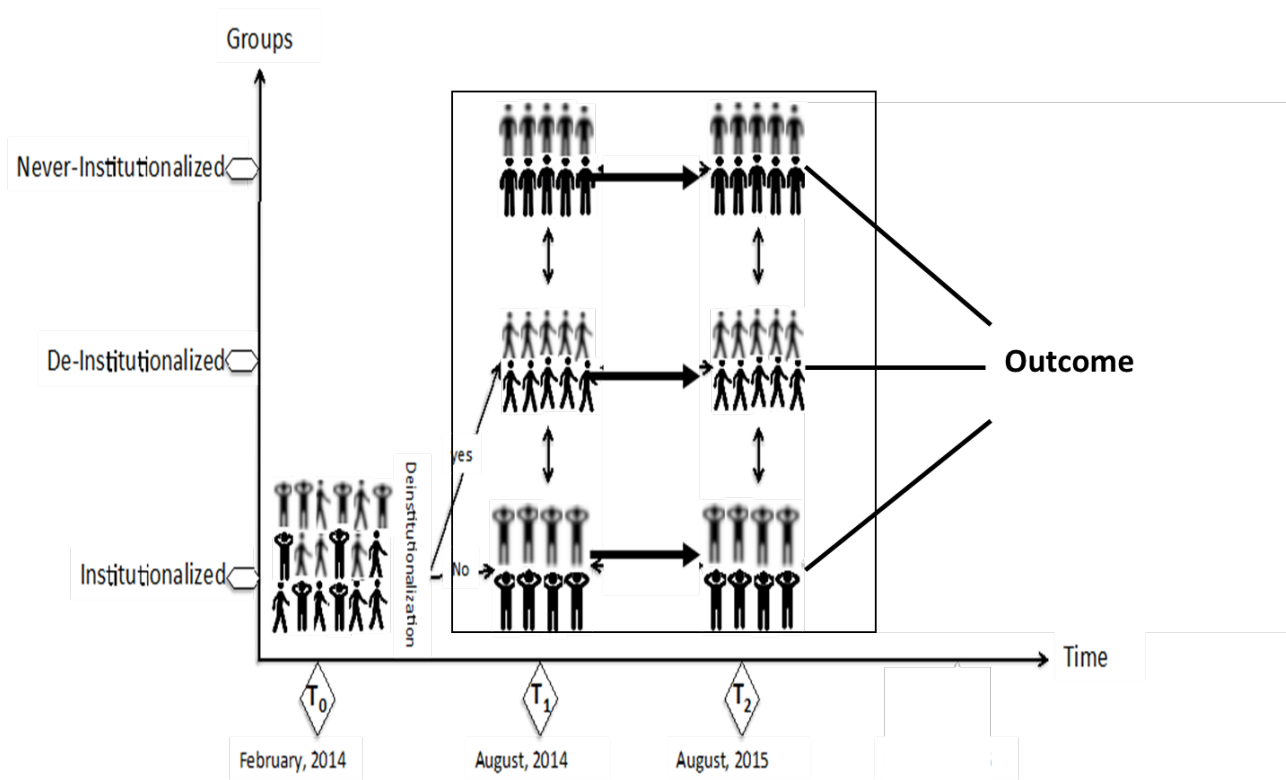


Figure 3. General design of the study.

Three-time point data collection was performed as can be seen on horizontal axis of the Figure above. First, initial data (T₀), which constituted the baseline data, were collected in February 2014, on institutionalized children when there were in orphanages. We pursued, three aims during this data point collection: to have a socio-demographic picture of institutionalized children so that we can maximize the accuracy of matching criteria while recruiting the control group, run the pre-test to adapt study instruments on a Rwandan sample for further use and conduct our first qualitative study to understand the nature and structure of institutionalization in Rwanda as well the lived experience of institutionalized children. Second, data were collected six months later, in August 2014 (T₁), from institutionalized children who were still in institution and from five children who had been reintegrated into families. At this time, never-institutionalized children were also recruited and data were collected on both children and their families. The third data was collected in August 2015 (T₂) on all three children groups and on families of deinstitutionalized children. This data point collection served as follow up measurement. From the above complex design, three

studies were conducted. Namely, the first study was a qualitative exploration of children's experience. Focus group discussion was used to collect data and data analysis was inspired by grounded theory. The second study was a cross-sectional comparative study. Quantitative data from collected at T₁ was used and analysis of variance and covariance was used to analyze data. The third study was prospective longitudinal study using data collected at T₁ and T₂. Analysis of variance and multiple regression were used to analyze data. Their designs are described below.

2.2 Study 1: Exploration of institutionalized children's experience

This study aimed at exploring the lived experience of institutionalized children in Rwanda. Only institutionalized children were involved in this qualitative study. Cross sectional data were collected at initial measurement time point (T₀) from focus group discussion.

We collected data in focus groups, which are semi-structured groups. Focus groups were used because they sample the experiences of a wide variety of subjects in a relatively easy fashion (Auerbach & Silverstein, 2003). With focus group discussion, participants had the opportunity to report their individual experiences, and also to respond to the experiences of other group members. In addition, we chose the group setting because it allows members to be connected and more open in-group settings than individually in the Rwandan socio-cultural context and particularly for institutionalized children. The qualitative data collection strategy best facilitates the discussion and in-depth exploration of participants' experiences and perceptions of key events (DiCicco-Bloom and Crabtree, 2006).

2.3 Study 2: Institutionalization and parents living status

The second study aimed at investigating the differences in psychological adjustment between institutionalized children and never-institutionalized children and at investigating the influence of parents' living status. Data collected at the second time (T₁) were used. A cross-sectional comparison was made between the above mentioned two groups and further four groups: Institutionalized with parents, institutionalized without parents, never-institutionalized with parents and never-institutionalized without parents. The Figure below represents this cross-sectional design.

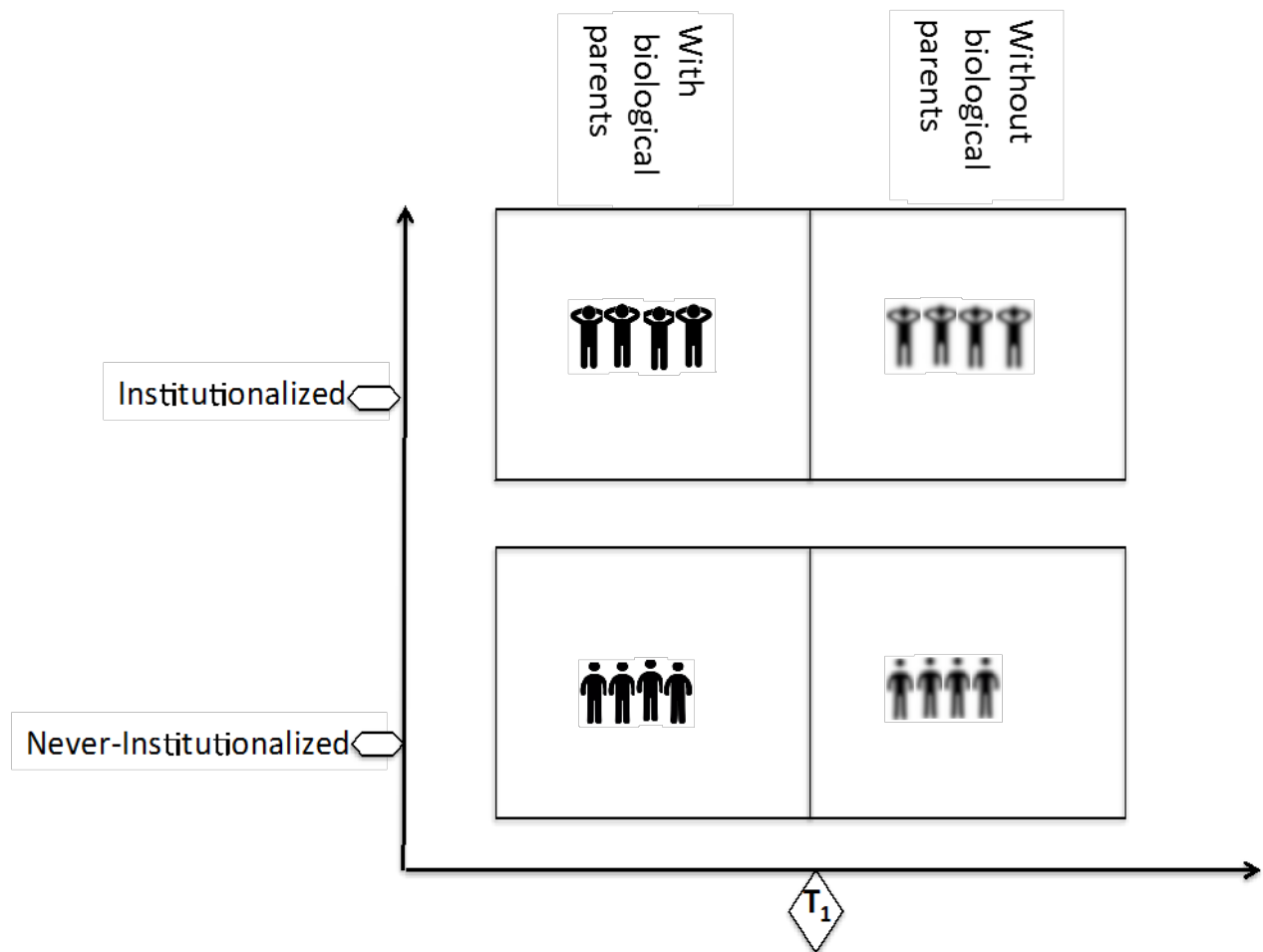


Figure 4. Illustration of cross-sectional design for study 2.

Outcome variables for this study were externalizing behavior problems, internalizing behavior problems and self-esteem. Data were collected using two self-report questionnaires. Coopernsmith Self-Esteem Inventory, school form (CSEI; Coopernsmith, 2000), reported by the child and Child Behavior Checklist (CBCL/6–18, Achenbach & Rescorla, 2001), reported by parent/primary caregiver. These instruments are described in the section dedicated to the measures.

2.4. Study 3: Deinstitutionalization effect and prediction of outcomes in family

The third study was a prospective longitudinal comparative study. The first aim was to evaluate the long-term outcome of institutionalization overtime and the effectiveness of deinstitutionalization. We controlled the effect of having or not having living parents. The second aim was to evaluate the influence of child and family characteristics in developing better

psychological adjustment in family. Data from the second and third measurement data point (T1 and T2) was used. Here, it is worthy to mention that the group named “deinstitutionalized children” were still in institution in exception of five children whose size could not make it possible the comparison between groups at that time. Outcome variables forming psychological adjustment were externalizing behavior problems, internalizing behavior problems, attachment problems and self-esteem.

In addition to the instruments used in the Study 2, the Quality of Life Questionnaire (Whoqol-Bref) (WHOQOL Group, 1998); Family Environment scale (FES) (Moos, 1974), Experience in Closed relationship revised for children (ECR-RC) (Brenning et al., 2011), Alabama Parenting Questionnaire for Children (APQ-C) (Frick, 1991) and Self-Efficacy Questionnaire for Children (SEQ-C) (Muris, 2001). The first two instruments are reported by parent/primary caregiver while the last three are reported by the child. These instruments are described in the section dedicated to the measures.

3. Measures

This section is about measured variables to test hypothesis of the present thesis and what instruments were used for that purpose. After an overview of all instruments used in this thesis, measures are presented study by study meaning for each study relevant measured variables and instruments used are presented. Reader can already find in the title of the study which variables are concerned.

3.1. Common aspects between studies

To test hypotheses of the Study 2 and 3, which were quantitative, self-report questionnaires measuring relevant variables were used.

Table 3 shows the instruments that have been used. Each instrument was translated from English into Kinyarwanda and back-translated to English. The process of back translation was carried out by fluent bilingual Rwandans (Kinyarwanda and English). When discrepancies on items were found during the back translation process, translators reviewed those items as a group and adapted

the translation by consensus. A pre-test was conducted before final version was adopted by consensus between the team of translators.

Table 3 List of data collection instruments by Study, measurement times, and rater

#	Instrument	Study	Time	Rater
1	Alabama Parenting Questionnaire (APQ-C) (Frick, 1991)	3	2	Child
2	Child Behavior Checklist (CBCL) (CBCL/6–18, Achenbach & Rescorla, 2001)	2,3	0,1,2	Parent/caregiver
3	Coopersmith Self-Esteem Inventory (CSEI) (Coopersmith, 1967)	2,3	0,1,2	Child
4	Experiences in Close Relationships Scale - Revised for use with children and adolescents (ECR-RC) (Brenning, Soenens, Braet, & Bosmans, 2011);	3	1,2	Child
5	Family Environment Scale (FES) (Moos, 1974)	3	1,2	Parent/caregiver
6	Self-Efficacy Questionnaire for Children (SEQ-C) (Muris, 2001)	3	1,2	Child/caregiver
7	WHOQOL-Bref (WHOQOL Group, 1998)	3	1,2	Parent/caregiver
8	Semi-structured interview (Focus group discussion)	1	0	Child

In the following section, detailed information on each measure is provided study by study. For each study, we present measured variables and instrument used to measure them.

3.2. Study 1: Exploration of institutionalized children's experience

In the study 1, children's perceptions were investigated. Scheduled at a time, date and location that were convenient for participants, the interview was conducted following a semi-structured guide with six open-ended questions formulated from the topics presented in Table 4. Some of the questions yielded responses more relevant to the concerns of this study than others, and consequently were over-represented in the data analysis. Discussions were held in the local language (Kinyarwanda) in the rooms inside the premises of orphanage to ensure a children's natural living environment so that they could feel comfortable, in a usual setting. In order to minimize researcher effects on the participants such as inducing social behaviors that would not have typically occurred (Miles and Huberman, 1994) a caregiver who was familiar with children was present but not involved in the discussion.

Table 4 Focus Group Discussion topics

#	TOPIC
1	Life in family
2	Separation with family: Causes
3	Separation with family: consequences
4	Life in orphanage: Inside
5	Life in orphanage: Relations with outside
6	Personal and family story life story

These groups were conducted over a period of 1 month in 2014. Each group lasted between 45 minutes and 60 min. The group interviews were audiotaped. All the interviewees accepted to be recorded. That facilitated our work during the interview as we could exclusively focus our attention to listening and understanding informants.

Before group discussions, each child was asked to complete an anonymous survey that included questions about their age, number of years in care and education. The interview were sequenced from general questions about the current situation of being cared for in orphanage to specific questions asking why they would or not place their children into orphanage. Opportunities for post-interview debriefing and clinical follow-up were offered to all participants given the sensitive nature of the material being discussed during the interviews.

3.3. Study 2: Institutionalization and parents living status

For Study 2, three variables were measured: Externalizing behavior problems, Internalizing behavior problems and Self-esteem.

3.3.1 Externalizing and internalizing behavior problems

To measure externalizing and internalizing behavior problems, we used Child Behavior Checklist (CBCL/6–18) (Achenbach & Rescorla, 2001). The Child Behavior Checklist (CBCL) (Achenbach & Rescorla, 2001) is an empirically based instrument used to assess children's emotional and behavioral problems (Achenbach & Rescorla, 2001). In the present study we used the parent-report questionnaire which is among the most widely used measures of children and youth symptoms, assessing a wide range of problems (Achenbach & Rescorla, 2001). The Child Behavior Checklist CBCL (Achenbach & Rescorla, 2001) exists in two forms: The Syndrome Scales, derived

empirically via factor analytic methods and The Diagnostic and Statistical Manual of Mental Disorders (DSM)-Oriented Scales, constructed through agreement in experts' ratings of the preexisting items consistency with DSM-IV diagnostic criteria (Nakamura et al., 2009). In the present study we used Syndrome Scales which have evidenced several strengths (Nakamura et al., 2009). Parents or caregivers responded on a 3-point scale, ranging from 0 = never to 2 = often, regarding whether specific behaviors were indicative of their child's behavior within the past six months.

The same parent/caregiver rated the same children for the initial, first and second time measurement point with the exception of deinstitutionalized children. One hundred twenty items are organized into 8 syndrome scales (narrowband): anxious/depressed, withdrawn/depressed, somatic complaints, social problems, thought problems, attention problems, rule breaking behavior, and aggressive behavior. Three broad-band syndrome scales constitute the CBCL: internalizing behavior problems, corresponding to the sum of subscales withdrawn, somatic complaints and anxious/depressed; externalizing behavior problems, corresponding to the sum of subscales rule-breaking behavior and aggressive behavior; and total behavior problems corresponding to the total of all items. In this study we used internalizing and externalizing broadband syndrome scales.

The CBCL (Achenbach & Rescorla, 2001) has adequate reliability and validity (Achenbach, 1991; Vignoe, Berube, Achenbach, 2000; Achenbach & Rescorla, 2001) and was proved to be valid and reliable when filled in by caregivers in residential settings (Keil & Price, 2006). Internal consistencies of all items ranged from $\alpha = .76$ to $\alpha = .85$ (Achenbach, 1991). In their multicultural Comparisons of CBCL/6-18, including very large samples and the great diversity of the populations (Africa, America, Asia, Europe), Rescorla et al. (2007) found that scale scores for most societies were near the "Omni-cultural mean" (the mean of scores from all societies) and that there was considerable multicultural similarity in the items that were rated low, medium, and high. In our study, the mean Cronbach's alpha for 35 items of externalizing scale was .85 and .84 where as it was .84 and .88 for 32 items of internalizing scale respectively for time one and two measurement points.

3.3.2 Self-esteem

To measure self-esteem, children completed the Coopersmith Self-Esteem Inventory, school form (CSEI; Coopersmith, 2000), which was devised for use with children, and designed to assess attitudes towards children's general self. Developed originally from a scale of Rogers and Dymond (1954), this form is used with children aged eight through eighteen and consists of 58 items: 50 self-esteem items and 8 items that constitute the Lie Scale, which is a measure of a child's defensiveness or test of wiseness. The self-esteem items yield a total score and, if desired, separate scores for four subscales: General Self, Social Self-Peers, Home-Parents, and School-Academic. All items of Coopersmith Self-Esteem Inventory (CSEI; Coopersmith, 2000) are short statements (such as, "I'm a lot of fun to be with"). For each item, participants answered whether the statement provided is "like me" or "not like me". The Lie Scale items (for example, "I always do the right thing") were worded so that they would be answered negatively ("unlike me") if the child were being honest and forthright in his or her self-appraisal.

There are no exact criteria for high, medium, and low levels of self-esteem. Depending on the characteristics of the sample, theoretical and clinical considerations, cutoff points can be established and persons with scores above or below those points can be identified for further evaluation. Coopersmith (2000) suggested that the upper quartile generally can be considered indicative of high self-esteem, the lower quartile generally as indicative of low self-esteem, and the interquartile range generally as indicative of medium self-esteem. To arrive at a total self-esteem, we summed self-esteem items and multiplied the total raw score by two. This resulted in a maximum possible total self-esteem score of 100. Scores were used on their continuum. No standard scores were used in the present study.

The Coopersmith self-esteem inventory was used and validated in many studies (Bartell & Reynolds, 1986; Blascovich & Tomaka, 1991; Harter, 1982; Huggins, 1989). The latter authors emphasized the psychometric quality of the scale and reliability in the study of individual and collective behavior both in its adult and school forms. The internal consistency ranges from .80 to .92 (Coopersmith, 2000). Cronbach's Alpha for the present study was .83 and .67 respectively at T₁ and T₂

3.4. Study 3: Deinstitutionalization effect and prediction of outcomes in family

For study 3, eight variables were measured: Externalizing behavior problems, Internalizing behavior problems, Self-esteem, Attachment, Parenting, Family relations, Quality of life and Self-efficacy. In this section we present those which have not been describe in previous section.

3.4.1 Attachment

To measure attachment, children completed an adapted version of the Experiences in Close Relationships Scale-Revised (ECR-R; Fraley et al., 2000) adapted for children as the ECR-RC by Brenning et al. (2011b).

The ECR-RC (Brenning et al., 2011) is a self-report measure for middle childhood children and early adolescents. Thirty-six items assess two dimensions: attachment anxiety and avoidance in relationship to the caregiver. A caregiver, who represent principal attachment figure, may be parents, a staff in orphanage, legal guardian or extended family member (Hrdy, 2007; Otto, 2008). Attachment anxiety is measured with 18 items tapping into feelings of fear of abandonment and strong desires for interpersonal merger (e.g., “I worry about being abandoned by my caregiver”). Attachment avoidance was assessed with 18 items tapping into discomfort with closeness, dependence, and intimate self-disclosure (e.g., “I prefer not to show to my caregiver how I feel deep down”). Items are usually rated on a seven-point Likert scale ranging from not at all (= 1) to very much (= 7). In the present study, we used attachment avoidance subscale. A three-point scale (0 = I agree, 1 = I partly agree, 2 =I don't agree) was used to simplify usability. During their correlation study, Brenning et al. (2011) found that ECR-RC construct was valid compared to other instruments measuring attachment including Attachment Security Scale (ASS, Kerns et al., 1996); Relationship Questionnaire (RQ, Bartholomew & Horowitz, 1991); and Preoccupied and Avoidant Coping Questionnaire (PACQ, Finnegan et al., 1996). The latter instruments correlated significantly with avoidance scale of ECR-RC (Brenning et al., 2011) respectively with $r = -.70$; $r = -.32$; $r = .60$. Cronbach's α , were respectively, .83 for the attachment anxiety and .85 for the attachment avoidance subscale (Brenning et al., 2011). In the present study, attachment avoidance subscale had Cronbach's α of .73 and .61 respectively for measurement time point 1 and 2.

3.4.2 Parenting practices

To measure parenting practices, we used Alabama Parenting Questionnaire (APQ) (Frick, 1991). The APQ (Frick, 1991) consists of 42 self-reported items that assess five parenting constructs: parental involvement, positive parenting, poor monitoring/supervision, inconsistent discipline, and corporal punishment. The APQ (Frick, 1991) has several versions: APQ-Child Global Report (Frick, 2011), Parent Global Report (Frick, 2011), Child Telephone Interview (Frick, 2011), and Parent Telephone Interview (Frick, 2011). In the present study we used APQ- Child Global Report (Frick, 2011). It was rated on a 5-point Likert scale from 1 (never) to 5 (always) (M. Smith, 2011). The authors reported the average reliability across the APQ (Frick, 2011) scales of .68 and test-retest reliability coefficients ranging from 0.66-0.89. The authors reported evidence of low internal consistency for punishment subscale, likely due to the fact that it has only three items (Essau, Sasagawa, & Frick, 2006). Internal consistency improves substantially without this subscale included. Moderate to extensive divergent and concurrent validities have also demonstrated by Essau et al., (2006). In the present study, we used parental involvement subscale which had the better Cronbach's Alpha of .88.

3.4.3 Family relations

To measure family relations, we used the Family Environment Scale (FES; Moos & Moos, 1994; 2002), one of the most widely used self-report questionnaire in the field of family environment research. The scale, developed based on the Family Systems Theory (FST) framework, was used to assess family environment from the perspectives of different informants within the family, as well as from single family members' perspective. In the present study we considered single family members' perspective. That family member was either the primary adult caregiver head of household or the mostly involved in parenting responsibilities. In addition to the Real Form (Form R) measuring the perception of the current family environment, which was used in the present study, FES can be administered in Ideal Form (Form I) measuring the preference for an ideal family environment and Expectation Form (Form E) measuring expectations of what family will be like in the future. Ninety true-false statements are used to measure perceived family interactions by assessing three dimensions of the family and its social environment, corresponding to the following subscales: the Relationships (the degree to which family members are perceived to be

involved with each other and how openly positive and negative feelings are expressed), the Personal Growth (the family of origin's goal orientation or ways the family of origin encourages or inhibits an individual's personal growth), and the System Maintenance dimensions (the degree to which the family emphasizes clear organization, control, structure, rules, and procedures in running family life). Scores on the subscales range from 0 to 9, with high values indicating higher levels of the corresponding aspect in the family climate. In the present study we used family relations index which is composed of items from cohesion, expressiveness, and level of conflict subscales.

Moos and Moos (2009) reported moderate to high internal consistencies for the 10 subscales of this instrument (ranging from $\alpha = .61$ to $\alpha = .78$) and it was found to have good construct and discriminant validity (Moos and Moos, 2009). For the present study, Cronbach's Alpha for the 3 subscales forming family relations index was .76, .23 and .43 respectively for cohesion, expressiveness and conflict subscales.

3.4.4 Quality of Life

The Quality of life was measured by the World Health Organization Quality of Life Questionnaire (WHOQOL-Bref, WHOQOL Group, 1998). The WHOQOL-BREF (WHOQOL Group, 1998) is a 26-item version of the WHOQOL-100 assessment, providing a broad and comprehensive assessment of the quality of life profile (Harper, 1998). The WHOQOL Group developed the WHOQOL-Bref (WHOQOL Group, 1998) in an attempt to develop a quality of life assessment that would be applicable cross-culturally (Skevington et al., 2004). WHOQOL-Bref (WHOQOL Group, 1998) includes 24 facets contained in the WHOQOL-100 (WHOQOL Group, 1995). In addition to those 24 facets, WHOQOL-Bref (WHOQOL Group, 1998) include two items from the Overall quality of Life and General Health facet (Skevington et al., 2004) which can be considered separately: Question 1 which asks about an individual's overall perception of quality of life and question 2 which asks about an individual's overall perception of their health.

It is possible to derive four domain scores. The four domain scores denote an individual's perception of quality of life in each particular domain (Harper, 1998). Domain scores are scaled in a positive direction (i.e. higher scores denote higher quality of life). The mean score of items within

each domain is used to calculate the domain score. In the present study, quality of life was measured by total score of the 24 items. Item rating scale ranged from not at all (= 1) to extremely or extreme amount (= 5) resulting to a minimum of 24 and maximum of 120. We used continuum scores rather than categorizing them based on any standard scores.

The psychometric properties of WHOQOL-Bref (WHOQOL Group, 1998) were analyzed using cross-sectional data obtained from a survey of adults carried out in 23 countries ($n = 11,830$) (Skevington et al., 2004). Analyses of validity through confirmatory factor analysis, internal consistency, item-total correlations, discriminant validity and construct, indicated that the WHOQOL-Bref has good to excellent psychometric properties (Skevington et al., 2004). The WHOQOL-Bref is considered as a cross-culturally valid assessment of quality of life, as reflected by its four domains: physical, psychological, social and environment. In the present study, 26 items used had Cronbach's Alpha of .94.

3.4.5 Self-efficacy

We measured Self-efficacy by the Self-Efficacy Questionnaire for Children (SEQ-C, Muris, 2001). The self-reported SEQ-C (Muris, 2001) contains 24 items that are hypothesized to represent three domains of self-efficacy: (1) social self-efficacy that has to do with the perceived capability for peer relationships and assertiveness; (2) academic self-efficacy that is concerned with the perceived capability to manage one's own learning behavior, to master academic subjects, and to fulfill academic expectations; and (3) emotional self-efficacy that pertains to the perceived capability of coping with negative emotions (Muris, 2001). Each item has to be scored on a 5-point scale with 1 = not at all and 5 = very well. A total self-efficacy score was obtained by summing across all items. The minimum score is 24 while the maximum is 120.

Muris (2002) examined the reliability and validity of the Self-Efficacy Questionnaire for Children. The reliability of the SEQ-C (Muris, 2001) was good: Cronbach's alphas were 0.90 for the total scale, 0.82 for social self-efficacy, 0.84 for academic self-efficacy, and 0.86 for emotional self-efficacy. In addition, the SEQ-C scores correlated in a theoretically meaningful way with a measure of depression (Muris, 2002). That is, the lower children's SEQ-C scores, the higher their level of depression. In the present study, Cronbach's Alpha was .81.

3.4.6 Economic category

To estimate participants' economic category, the present thesis used *Ubudehe* categorization created by Local Administrative Entities Development Agency in 2014. Participants were asked to reveal in which *Ubudehe* category they belong. Indeed, according to the Government of the Republic of Rwanda (2015), the word *Ubudehe* refers to the practices and culture of collective action and mutual support to solve problems within a community. The concept has been translated into a home grown development program whereby citizens are placed into different categories based on their social-economic status, and their property, in terms of land and other belongings, and what the families' breadwinners do to earn a living.

The community gathers and a representative from each household gives details on the families' social and economic status. The details are provided through to a questionnaire designed by the Ministry of Local Government. After each household has filled in the questionnaire, the community gathers at the cell level to crosscheck the accuracy of the information. When the community approves the information as accurate, the categorization process begins. The data collected is sent to the district level which sends it to the Ministry of Local Government for validation.

The categories are as follows:

- **Category 1:** Families who do not own a house and can hardly afford basic needs.
- **Category 2:** Those who have a dwelling of their own or are able to rent one but rarely get full time jobs.
- **Category 3:** Those who have a job and farmers who go beyond subsistence farming to produce a surplus which can be sold. The latter also includes those with small and medium enterprises who can provide employment to dozens of people.
- **Category 4:** Those who own large-scale business, individuals working with international organizations and industries as well as public servants.

4. Data Analysis

In this section, we will provide the process used to examine each component of the data collected. First, an outline of what is common to all three studies is given followed by specific data analysis information for each of the three studies. Second, grounded theory, analysis of variance and covariance and multiple regression are introduced respectively for study 1, 2 and three data analysis.

Qualitative data analysis guided by grounded theory method was used for Study 1. Study 2 and 3 used quantitative data analysis methods. For the latter studies, all statistical methods were computed using SPSS© software (Ver. 23, IBM Corporation®). Alpha level was fixed at $\alpha = 5\%$. First, internal consistency was checked for every subscale used in the present research and reported in the section of measure description. In the original data plan, we proposed to exclude cases if 30% of data or more was missing. According to this criterion, two cases in study 2 and four cases in study 3 were excluded.

4.1. Study 1: Exploration of institutionalized children's experience

We based the qualitative data analysis on the grounded theory for study 1. In the following lines data preparation and coding process is presented.

4.1.1 Data preparation

After the conduction of focus group, we transcribed each interview immediately. This enabled us to add our field notes regarding our impression of interviewees' body language, tone of voice, attitude, etc. (Auerbach & Silverstein, 2003). The interviews were transcribed verbatim. Where the interviewee seemed to be not coherent, we added our interpretation but left his words intact. Likewise, when during transcription we found any jargon that we did not understand, we called the interviewees and asked them for the meaning of those terms (Auerbach & Silverstein, 2003). A team of bilingual collaborators translated from Kinyarwanda to English and back-translated all interview transcripts. The transcripts and field notes constituted the material for qualitative data analysis.

During the whole data analysis process, we used the computer software MAXQDA 12 (1989-2016, VERBI Software Sozialforschung GmbH) to organize the vast amount of information collected, and to support our coding. As a method established here, a chi-square test was performed to assess the goodness of fit between a set of observed frequency of categories and those expected theoretically. We considered text segments as measurement units.

We used an abbreviated version of grounded theory methodology (Strauss & Corbin, 1994). We worked with only the original data. Consequently, theoretical saturation was ensured by conducting repetitive focus group discussion (five different groups). Theoretical saturation was also ensured within each text of individual focus group by adopting a non-linear coding process. At each level of coding, coder may return to earlier text segments to re-explore it (Charmaz, 2006). In the present thesis, text segments are referred to as words, expressions, and sentences that constitute meaningful units ascribable to a more abstract category in line with relevant data and context (Rabinovich & Kacen, 2010).

A team of 5 persons participated independently in the coding processes namely Epaphrodite, Franziska, Darius, Jeannette and Laurent. The first coder had work and contextual experience with children in orphanages and their families. The second coder was a Western Master's student who did not have prior contextual background of the sample. The third and fourth coders were Rwandan with experience in qualitative data analysis. The fifth researcher was a Western lecturer of qualitative methods who played an external auditor role. Finally, the Supervisor of the thesis oversaw the whole coding process.

4.1.2 Coding process

We used a coding procedure with four levels of categories; initial coding, focused coding, Axial coding, and theoretical coding (Charmaz, 2006). Each level subsumed the level below it. That is, each focused code is a cluster of initial codes, and each theoretical construct is a cluster of Axial codes (Charmaz, 2006).

At the first level, the first and second coders performed an **Initial Coding** separately. Both coders stuck closely to the data and tried to see actions in each segment of data rather than applying

preexisting categories to the data (Charmaz, 2006). To avoid importing existing theory into the analysis, coders used codes based on the terms, actual wording and formulation used by informants (in vivo codes).

Each group interview transcript was examined reading regularly and repeatedly throughout the text which involved the generation of largely descriptive labels for occurrences or phenomena. Initial coding gave rise to the text-based low-level category that we named “**Codes**”. The first and second coders compared and combined different codes.

At the second level, first and third coders participated independently to **focus coding**. The aim was to synthesize and explain larger segments of data using the most significant earlier codes and determine which initial codes make the most analytic sense to categorize our data incisively and completely (Charmaz, 2006). From initial codes, we developed the sensitizing concepts, which are, coded culturally specific ideas and understandings implicit in the text-based categories. These categories are analytic rather than descriptive. We named them “**Concepts**”.

The agreed concepts (focused codes) between the two coders was submitted to the fourth coder to retrieve corresponding text segments as back coding check. An intercoder agreement was calculated. The first intercoder agreement was lower and resulted in the revision of focused codes. A revised focused code system was handed again to the third coder. Results showed a high correlation in terms of existence of the codes between the two coders. The two team members differed only in the use of the concepts “Labelling”, “Rescuing”, “Role reversal”, “Strong” and “Conciled”. To investigate which coder coded which segment and whether the segments correlate, we calculated a Kappa coefficient. Segments were considered as equally coded if the codes were placed 50% equally in both document. A Kappa of .13 was obtained for Focus group Discussion 1 (FGD1Es) denoting a slight agreement according to commonly cited scale ranging from 0 (Poor) to 1 (Almost perfect agreement) (Viera & Garrett, 2005).

At the third level, first and third researchers went on the **axial coding**. The aim was to relate categories to subcategories specifying properties and dimensions of the category. Linkages between low-level categories were established and integrated into higher-order analytic categories by arranging categories in a meaningful and hierarchical way, with higher categories constituting

the ‘core’ and lower the ‘periphery’ (Strauss and Corbin 1990). Contained relationships, in which one category is contained in another or in which several categories are contained in one larger category were identified (Rabinovich, & Kacen, 2010). For example, concepts such as “Rescuing” and “Caring” were categorized as ‘Saving lives’ as they appear to share the objective of saving lives. We named Axial codes **“Category”**. The final list were obtained by consensus of the second and third coders. A fifth external independent auditor oversaw the axial code system adding appropriate adjustments.

At the fourth and highest level, **theoretical coding** was conducted by the first coder to specify possible relationships between developed categories during previous coding steps as a way of weaving the fractured story back together (Glaser, 1992). Theoretical coding aimed at conceptualizing how the substantive codes may relate to each other as hypotheses to be integrated into a theory to “tell an analytic story that has coherence” (Charmaz, 2006). Theoretical concepts from our own assumptions were used to organize the coherence-based categories into theory-driven **“Constructs”** and a **“theoretical model”**.

Each step of coding was accompanied by memo-writing which helped in stopping and analyzing ideas about codes, category concepts and constructs in any and every way that occurs to us during that moment (Charmaz, 2006). Memos helped to increase the level of abstraction of ideas, as well as describing in a narrative account using participant quotes to demonstrate the grounding of themes in the data.

Finally, reports were generated and reviewed by the authors and further discussed in order to determine consistency and agreement of coding.

4.2 Study 2: Institutionalization and parents living status

To test hypotheses of Study 2, three separate two-way analyses of covariance (ANCOVA) were used to examine the main effect of institutionalization and biological parents’ living status and their interaction effect on externalizing behavior, internalizing behavior and global self-esteem score as dependent variables associated with psychological adjustment while controlling for age. We controlled for age as our samples significantly differed for this variable. Institutionalization as independent variable included two levels (institutionalized, never-institutionalized) and biological

parents' living status consisted of two levels (deceased, living). In addition, we replicated those analyses with gender as an additional between-subject factor to determine whether there were differences between girls and boys. To better understand the effects of our independent variables on externalizing behaviors, we performed exploratory analyses on each subscales using ANOVAS.

Results of evaluation of assumptions including, homogeneity of variance, multivariate normal distribution, and homoscedasticity of error variances were satisfactory for each dependent variable. For the covariate, homogeneity of regression and other possible two-way and three-way interactions were verified at alpha level of .05. For aggressive behavior and rule-breaking behavior subscales, the assumption of normality assessed with Shapiro Wilk test were significant, $p < .001$, violating the assumption. However, (Howell, 2014) suggests that the ANOVA is robust despite violations of normality in cases of large sample size (>50). The assumption of equality of variance was assessed using Leven's test. The results of the test were significant, $p < .001$ violating the assumption. However, we performed F test assuming the inequality of variances (Pituch, Whittaker, & Stevens, 2007).

One case missing value for externalizing behavior and for self-esteem scores was deleted. We used z-scores to identify outliers and found two cases with extremely high z-scores (>3.29) on externalizing behavior problems and were deleted, leaving 175 cases for analysis (82 institutionalized and 93 non-institutionalized). To analysis the single interaction effects, we performed post hoc pairwise multiple comparisons of the means based on Bonferroni-Holm procedure for unbalanced design with adjusted alpha level of $p < 0.025$ ($.05/2$) for each dependent variable.

4.3 Study 3: Deinstitutionalization effect and prediction of outcomes in family

4.3.1 Prerequisite analyses

A mixed-groups factorial ANOVA was performed to test the hypotheses related to long-term effect of institutionalization and deinstitutionalization. ANOVA was followed-up using Games-Howell procedure ($\alpha = .05$) for unequal sample sizes (Field, 2013). As a result of our critical literature review, psychological adjustment was measured by 4 dependent variables separately: Internalizing behavior, Externalizing behavior, Self-esteem and Attachment-related avoidance problems.

Within-subjects independent variables consisted of 2 Time measurement point (Time 1 (August 2014) and Time 2 (August 2015)). Between-subjects consisted of institutionalization status (deinstitutionalized and never-institutionalized) and biological living status (orphans and non-orphans).

To test multivariate normality assumption, a Q-Q plots were used (“Q” stands for quantile). Dependent variables with the exception of self-esteem and attachment-related avoidance were not perfectly normally distributed for each combination of the groups (within-subjects factor and between-subjects factor). However, mixed ANOVA violation of normal distribution hardly affects test results for reasonable sample sizes ($n > 30$) (Field, 2013).

Univariate outliers were detected using z-scores where a z-scores of 3 constituted an outlier (Field, 2013). One case for each dependent variable was found to be a univariate outlier and was excluded from analysis. Multivariate outliers were checked using Cook’s distance (Field, 2013). No value greater than 1 were found in the model formed by each dependent variable suggesting that there were no significant multivariate outliers in any group of within-subjects factor or between-subjects factor (Field, 2013).

For each dependent variable, we tested the assumption of homogeneity of variances for each combination of the groups of the two factors (within-subjects factor and between-subjects factor) using Levene’s test. Variances for self-esteem and attachment were homogeneous. After deleting outliers for internalizing and externalizing behavior Levene’s test indicated that variances were more or less the same among groups for all levels of between-subjects factors but not homogeneous for within-subject factor. However, Games-Howell test, which were used to make pairwise comparisons, is also powerful for situations in which population variances differ (Field, 2013).

Variances of the differences between the related groups of the within-subject factor for all groups of the between-subjects factor, known as sphericity, was not an issue because we had only two levels of a repeated measure variable (Time 1 and Time 2) (Field, 2013).

4.3.2 Inference statistical tests

Multiple regression analyses were conducted to explore conditions explaining better psychological adjustment once children are placed into a family. First, predictive value of five theoretically relevant child and family characteristics (independent variables) in adjustment (dependent variable) was investigated using standard multiple regression with Enter method. Second, associations between predictors were examined using moderation and mediation analysis. PROCESS macro for SPSS written by A. F. Hayes, Release 2.15 (Hayes, 2013), was used for mediation and moderation analysis. Data collected during the second time measurement from two groups in family (deinstitutionalized and never-institutionalized children) were used.

Six investigated independent variables (predictors) were Family relations, Parenting practices, Economic category, Perceived quality of life, Time spent in family and child's Self-efficacy. Dependent variables were Internalizing behavior, Externalizing behavior, Self-esteem and Attachment-related avoidance problems. Each dependent variable was tested individually.

Given that six independent variables were to be included in the analysis, a sample size of 112 was adequate (Tabachnick & Fidell, 2012). Independent variables were not a combination of other independent variables, meeting the assumption of singularity.

An examination of correlations matrix for each dependent variable with all independent variables (See Table 7, 9, 11, and 13) revealed that no independent variables were highly correlated. The Tolerance and the variance inflation factor (VIF) collinearity statistics were all within accepted limits. The assumption of multicollinearity was deemed to have been met.

One extreme univariate outlier identified in initial data screening for each dependent variable were excluded from analysis as above. Multivariate outliers were examined using Mahalanobis distance scores. For our sample size, alpha level ($p = .05$), and six independent variables, a distance greater than 12.59 was considered as causing a concern (Field, 2013). After comparing results with and without such cases from the analysis, we excluded them for the final analysis. Individually, we excluded three cases for internalizing, 5 cases for externalizing, 5 cases for self-esteem and 2 cases for attachment-related avoidance. After excluding those cases, residual and scatter plots indicated that the assumptions of normality, linearity and homoscedasticity were all satisfied.

In mediation and moderation analysis, to increase the interpretability of coefficients and constant in regression by having a meaningful zeroes during the interpretation of the constant, we centered scores for all variables to their mean by subtracting the mean to their respective scores.

III. RESULTS

We report here the results of our three studies. Results are presented study by study and hypothesis by hypothesis.

1. Study 1: Exploration of institutionalized children's experience

For this first study whose aim was to explore institutionalized children's experience, retrieved codes following a coding process are presented at the beginning of this section. Next, each construct is described in line with the contained categories and concepts. The last section presents the last phase of coding which was a theoretical coding resulting to a theoretical model named orphanization process.

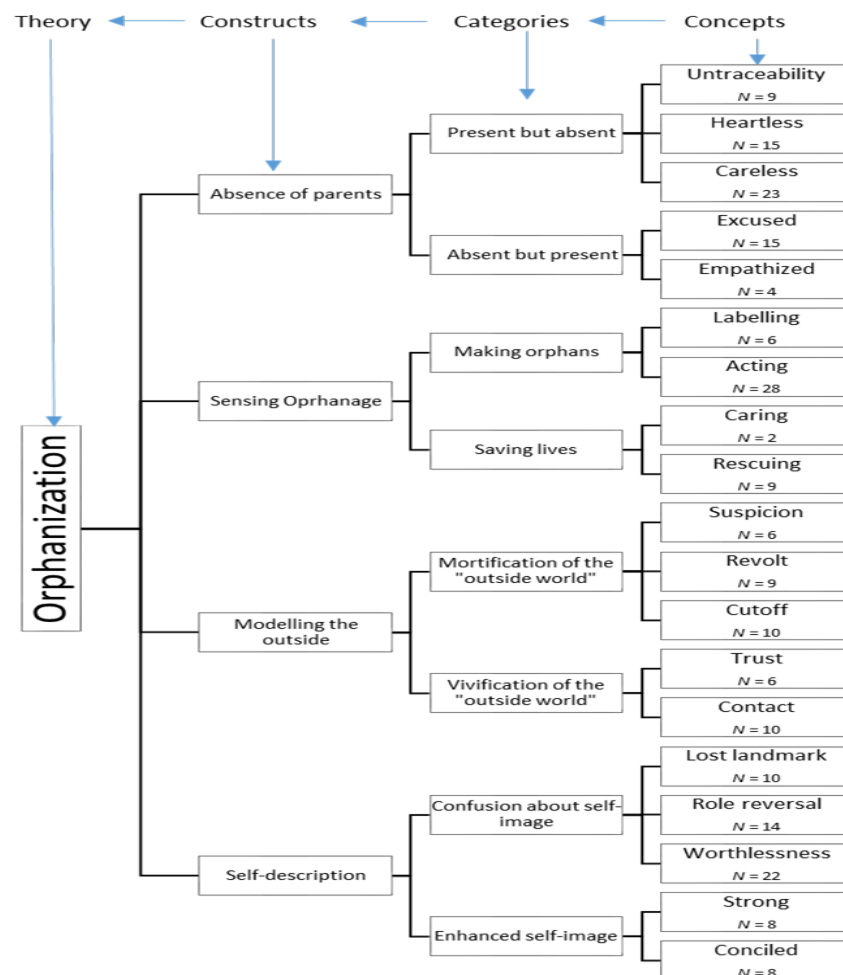


Figure 5. Coding process and results.

1.1 Presentation of retrieved codes

Results of the coding process are presented in the figure 5. The process is presented by left directed arrows, while results are represented by downward directed arrows. The Figure shows Concepts, Categories, Constructs and a Theory names identified following the coding process. N is the number of coded segment for each concept.

1.2 Description of constructs

In this section, each construct is described in line with the contained categories and concepts. Absence of parents, sensing orphanage, modelling outside and self-description. Each construct is composed of two categories.

1.2.1 Absence of parents

A total number of 66 coded segments represented this constructs which is 31% of the overall 214 coded segments in the study. Absence of parents is composed of two opposing categories namely “Present but absent” and “Absent but present” parents. Either parents are absentified (present but absent) or presentified (absent but present). In either way, children try to find a meaning in a series of expressions ranging from imagination to empathy. “Present but absent” parents ($n = 47$) was significantly highly represented than “Absent but present” parents ($n = 19$), $\chi^2(1) = 11.879$, $p = .001$.

1.2.1.1 Absentification of parents

Absentification of parents is a category denoting “present but absent” parents by participants. It is made-up by texts around the process through which, children conceive parent’s state of being away from their daily life. Absentification of parents is independent of whether biological parents are dead or alive. In both cases, parents are « blamed » of their current withdrawal from the daily life in orphanage as well as from children’s life story. Three concepts were used by participants to describe the construct of absentification of parents: “Un-traceability”, “Heartless” and “Careless”.

a) Un-traceability

“Un-traceability” encompasses text segments referring to the physical inability to detect or verify the history or physical location of parents by trustful information. Un-traceability may be real, imagined or forged. In any case, un-traceability, also referred as “mysterious” origin, was associated to the inexistence of their parents. Several mentioned that they think their parents are dead while they may be alive. Without having trustful information, participants prefer to forget them as if they were absent in order to be able to “live peacefully”.

“I can give an example on myself. I was placed here in orphanage at the age of one year and half or at the age of some months. I was not able to know my mother’s name and I don’t know anyone from my family [...] “Parents who didn’t care, don’t care and keep quiet while we need them! [...] Even if it is difficult, better you forget such parents forever and bear in mind that they have died.”

b) Heartless

“Heartless” is a concept to denote the absence of parents considering them as not having human heart. The heart was considered as the source of love, humanity and intelligence which are conditions to be a living body according to participants. Children used words like throwing, killing or placing a child into dustbin to showcase that no one with human heart can do it. For those parents who do it, thoughts and intelligence are upside down according to participants’ words.

Kinyarwanda expressions used to qualify the parental and human quality includes: *Uriya mubyeyi cg uriya muntu agira umutima mwiza versus uriya muntu agira umutima mubi! Ni Imana y’i Rwanda!*

“You can’t abandon your child if you have a human heart and those without good heart bring the child into orphanage because if they had one, they would have kept the child with them”

c) Careless

“Careless” was a concept referring to the fact that parents are considered absent because they do not or did not give sufficient attention to the state of being a parent and subsequent fatherhood and motherhood responsibilities. Substantial non-performance of parenting responsibilities was

considered as an absence. For biological parents who presume that they placed the child into orphanage because they don't have enough means to raise their children, participants wondered how they survive on their turn if they can't at least sustain to raise their child.

“Instead of making the plan of how they will raise their children, some mothers plan how they will disappear so that no one knows that they gave birth [...] They rather give birth to you without planning and without enough means to cater for your needs and they don't care about what will happen to you [...] How can a parent miss something to give to his/her children?”

Participants considered giving birth to a child without plan like making him an orphan before the birth as it is more likely that parents will fail to assume their parental responsibilities and disappear.

The fatherhood was questioned through what children called the inability of fathers to care for children in case a mother is absent or the refusal of fatherhood. The lack of fatherhood parental skills and egoism were designated.

“Most of us don't have fathers, so we are orphans [...] Fathers settle to remarry and place the child into orphanage allegedly for protecting the child from potential maltreatment or exclude any disturbance to enjoy alone the new marriage”.

The motherhood was questioned as well. Participants spotlighted the utmost importance and the suffering a mother undergoes through pregnancy and delivery which make it unimaginable for children to understand how a mother can be able to “throw out” his/her child. To position themselves they named those mothers. All chosen names are similar to insults excluding such mothers from human being like wild animal, stone-hearted, dry tree and worn object.

“If they were true mothers they would not have abandoned their children”.

1.2.1.2 Presentification of parents

Presentification of parents means rendering them present in the sense of having good reason of what they have done. Parents are absent but present. Participants uncovered a number of thoughts and explanation to give reason to their parents. The process of making parents present is put into words through two concepts: “Excused” and “Empathized”.

a) Excused

“Excused” was used to group text segments reflecting justification of why parents placed their children into orphanage. In this case, parents are not blamed. One of the “understandable” explanation participants gave is that parents feared to be stigmatized in society by having for example an unwanted, disabled or out of marriage child. Another example they gave include girls who are made pregnant while they are at school and girls who go, from rural areas, to town to work as house-girl and get pregnant. According to participants, another “understandable” justification was poverty associated or not to another social reason. It is then, according to children, reasonable to find another place that can provide what parents are not able to provide to children in order to save both lives in stead of suffering by two.

“Some girls give birth and they are afraid of their mother’s negative attitudes and perceptions. As in such circumstances, she cannot get any support, the girl wonders where she will live, what will she give to the child, how will other family members perceive her and the child [...] she decides to kill the child or abandon him/her” FGD1Es 22-22.

b) Empathized

“Empathized” denotes making parents present by understanding and sharing their feelings. Children and parents are then connected through shared emotions. Some children believed their parents were psychologically or physically suffering in a way or another to get to the decision of placing the child into orphanage. According to children, parents are still anxious about the life of their children wherever they are and whatever they are doing. To empathize, some participants were also persuaded that to be institutionalized was rather their own faults. They think they have upset their parents in one way or another for example.

We know they are always listening to radio, an announcement of a baby who died or finding a way to approach orphanage to find and get back their child [...] It’s may be because of me that my parents lost their minds [...] Some behaviors of the child can make parents loose mind and abandon the child including crying a lot without being soothed, spending your time and nights outside the family without helping them in housework activities”.

1.2.2 Sensing orphanage

Sensing orphanage is the second construct. Once placed into orphanage, children try to find out the meaning of actual living conditions. Sensing orphanage is built from a settled way of thinking or feeling about life in orphanage in comparison of life before. For some of participants, life before orphanage is unknown either because they have been placed into orphanage at their very young age or because they didn't get the opportunity to explore objectively their life history. Under the reason of not « re-traumatizing » children, some orphanages prefer to not tell children's personal life story to themselves. Other reasons include the fact that children personal life story may have been distorted for “their interest” in order for them to get a place into orphanage. In this case, imagination of life before orphanage plays an important role.

Ingredients of their frame of mind include the following: the comparison between what is done and what children think was expected to be done for them; the image they think others attribute to children in orphanage; the subsequent expected behavior for a child to be able to live in an orphanage and whether or not they deserve to be in the orphanage, what would have happened if they were not placed into orphanage.

The way of looking at things resulted in getting two opposing subjective portrayed description of orphanage: “Making orphans” and “saving lives”. As can be seen on Figure 4. a description of orphanage as an institution that transform children into orphans ($n = 34$) was significantly more frequent than the second description which described orphanage as a survival island ($n = 11$); $\chi^2(1) = 11.756, p = .001$.

1.2.2.1 Making orphans

Making orphans is one sense given to orphanage by participants. Making orphans brings up the fact that orphanage transforms children into orphans i.e. before placement into orphanage one is a “child” but once placed into orphanage, one becomes an “orphan” independently of your biological parents' living status. Two concepts have been identified to allude to text segments related to that process of making orphans: “Labelling” and “Acting”.

a) Labelling

“Labelling” put together texts segments in relation to the process of getting "orphan" label.

The first way of getting the orphan label is automatic. There is a widely known cognizance that orphanage are for orphans with regard to etymological meaning of the word orphanage. The second way of getting orphan label is forging papers to indicate the child has lost both or one parents to be easily admissible into orphanage and fit into a “supportable” profile. A child and/or institution manager/staff may be or not aware or involved in the falsification of the child’ story.

“I recently knew that I was brought by my father assuming to be a well-intentioned person who picked-up an abandoned baby.”

b) Acting

“Acting” as an orphan means to take actions or to behave, consciously or unconsciously, in a way to maintain the acquired label of orphan. In case you earned the label through falsification, you need to cut from whoever may discover your original identity which imply the exclusion of the child from close family and social environment. To get attention and care, participants said they act as orphan. For participants, acting as an orphan means also get used to difficult life or feeling that you are where you are not supposed to be. Acting as an orphan is related to questioning any intention or action wondering whether it’s not to profit your vulnerable profile as you are taken as child who come from parents without any supportive socio-economic background. Finally, acting as orphan reflects living in constant comparison of every single situation in orphanage with the ideal situation where parents are present; comparisons that result into a non-satisfaction of the current situation.

“We get what we need when we present a very sad story to get a pity of donors. You finally own that story as if it is a reality”

“We know very well that they are employed staff[...] When you are with poor parents, they make an effort to give you few and less expensive notebooks but you can see they made an effort and they have willingness to give you all they can [...] But here in institution, we know

that money has been sent and that they should give us good school materials but they give us few and bad quality. We know that clothes are there but they will give you those clothes after you have shouted as if it's not in their responsibility to give us clothes”.

1.2.2.2 Saving lives

In this category, orphanage is described as lifesaving place. “Saving lives” of children is operated by orphanage in two steps according to text segments grouped into this category: “Rescuing” and “Caring”.

a) Rescuing

“Rescuing” refers to the fact of saving the child from a dangerous or difficult situation he/she was facing before being placed into orphanage. Text segments taken in this category highlight the sensation according which without orphanage they would have died and being placed into orphanage as a chance. Danger is not perceived only at the place of abandonment but also inside families. Family maltreatment is for example a difficult situation cited in the text segments from which children think orphanage sheltered them. Another source of family maltreatment cited in the text segments is related to inheritance.

“I was abandoned one day after my birth in the bush near the lake. Unaccompanied dogs used to wander nearby that place. By chance, I was picked by a passerby and placed into orphanage”.

“The one who killed my mother is our neighbor. That one is always chasing me so that he can kill me too. That is why I never go to visit my grandmother “.

"Your step mother, uncle or aunt may maltreat you because of inherited property"

“He can pick you promising you miracles to care, but, getting home; he will start exploiting you as an unpaid domestic worker”.

b) Caring

“Caring” covers thoughts about material support they get in orphanage to cover their basic needs considering that family didn’t manage to care.

“They pay school fees, feed us, give us where to sleep, clothes, water, moral education i.e: they correct us, they show us the way we can pass so that when we are out of orphanage we can know what to do and be useful, they give us shoes, sometimes younger children watch television, they give us balls to play, they are present in our parents’ meetings at school when they are invited”

1.2.3 Modeling the "outside world"

Modelling the outside is the third construct we identified. “Modelling the outside” means giving the sense to the outside world or attitudes and perceptions towards the outside world. In this construct, participants demonstrated a clear demarcation line between the inside and outside orphanage world. Immediately after the child is admitted into orphanage, the world is dichotomized: there is « inside-world » and « outside-world ». This dichotomization functions in three main dimensions of thinking physical and social world around the child in orphanage: space, time and subjective persona. Boundaries are frequently and easily picked up through participants’ discourses all over the focus group discussions. Collective learning mechanisms behind this modelling which was subject to the present study is conscious or unconscious. This pseudo reality is made real through imitation, repetition, peer-reinforcement and imagination among other fueling ingredients. In terms of subjective persona, there is a « we » which is marked out clearly from a « them ». The « we » refers to children living in orphanage while the « them » refers to children in family. During focus group discussion, a rare use of singular forms of nouns and pronouns used for the subject of a sentence was rare. In terms of space, there is a « here » and an « elsewhere ». The « here » refers to inside orphanage while the « elsewhere » refers to any surrounding or farther community. In terms of time, there is a « before » admission into orphanage and an « after » admission. Complex reality is reduced to a bi-dimensional reality to make it much easier understandable for the child. At the other hand the child who felt threatened by adverse reality of orphanage find a self-protection and much more comfort in redefining the world on their favorite understanding. While the « inside world » is well established and included in a day-to-day living

reality in orphanage, an enigma remains whether they can include or rather exclude the « outside-world ».

Limited contact with the “outside” increases the chance of being excluded from child’s mind. The child is then compelled to live the only “inside” world. To be able to “kill” the “outside” the child will “kill” an important part of himself/herself which is “outside”. It is a kind of exclusion of all of what the child fails to have an objective understandable meaning; persons, relationships, life stories, situations, organizations, objects...

« Modelling the outside-world » category gathered 41 text segments related to that issue which is 19% of total coded segments in the study. Two opposing views were recapitulated: “Mortification of outside” (n = 25) and “Vivification of outside” (n = 16). There was no significant difference in the number of coded segments for both categories, $\chi^2(1) = 1.976, p = .160$.

1.2.3.1 Mortification of the "outside world"

Mortification is first category of modelling outside. Three steps to mortification of outside have been identified in the coded segments: “Suspicion”, “Revolt” and “Cutoff”.

a) Suspicion

“Suspicion” refers to children’s ideas or impression that outside is questionable, dishonest, or dangerous. It is also a way of imagining how outside take children in orphanage in terms of worthiness. Suspicion is finally expressed in terms of thinking that outside is the source of their misfortune.

“I can’t even greet my aunt who said I am nothing but a bad girl left by bad mother. She is like a bad person. She can even kill you by empoisoning you”

« Persons outside think that children in institution live an easy life and are spoilt by sticking to us all bad stereotypes [...] they think we are good at nothing, lazy and difficult children [...] We are bad because of them [...] our vulnerability is subsequent to their mistakes”

b) Revolt

“Revolt” refers to the revenge response towards any adult who initiated what children call their misfortune which resulted in placing them into orphanage. By generalization, participants revealed that they are always angry against all adults as they think the one who abandoned them into orphanage was an adult. Revenge response identified in text segments include concrete behavioral reaction adopted as an attempt to end the authority of adults by making them “feel sick” including opposition, lying, stealing, prostitution, aggressivity, drug abuse, to skip school and criminality. Apart from concrete behavioral reaction, revolt is also expressed through unchecked freedom.

« I misbehave because I don't please anyone [...] He bought me body lotion and, as girl, I felt loved for my first time; he then did whatever he wants to me [...] If someone tells me go and do kill him when you come back we will pay you, I would do that bad job because at least I will get money”

"If you don't provide to your children all basic needs, what do you want them to do? I can't never blame a child"

c) Cutoff

“Cutoff” refers to stopping any contact with outside or imagining that it's impossible to re-establish bond of communication with outside.

"We don't have any reason to not hate or tolerate those kind of parents [...] they abandon their children, when then they see the child has finished studying, they start informing him/her that they are his/her parents you are a child of ours, because they see you begin to have a good living conditions [...] that's where hate will start.

1.2.3.2 Vivification of the "outside world"

Vivification of the outside is built up by codes related to the belief that outside contribute to children's personal growth. “Trust” and “Contacts” with outside are steps and elements of vivification of outside.

a) Trust

“**Trust**” covers children’s firm belief in the reliability and ability of outside to empathize, protect, and reconcile them with key adults outside orphanage. Coded segments showed also, as a dimension of trust, the belief in the ability of the outside to reconcile children with their family and ensure their conditions are acceptable. Trusting outside goes beyond family circle.

“When you have someone outside, you grow up knowing that someone is there for you, ready to resolve any matter unresolved by orphanage”

“People who really know us focus on what we are able to do and expand the reality to others. They know that apart from the living skills we gained from living in a “white man house”, we also work hard. They love us and may receive us because we are useful and valuable persons”

b) Contacts

“Contacts” incorporates segments related to the action of communicating or meeting up with outside typically through visiting or getting visited by outside. Contacts serve also to give or receive information and advice. Contacts are finally of use to learn and grow personally.

“You get information about your family. How is or was the relationship between your parents and the rest of the community? Even in case your parents are no longer living, they may advice you which person to avoid and which one to approach based on the quality of relationship with your parents”.

1.2.4 Self-description

Self-description is the fourth construct. Indeed, following the absence of parents and placement into orphanage, many of what the child had as reference points to define him/her self in typical conditions have changed. This result in the restructuring of the child’s self, including the status of “being a child” itself. The word « child » is usually defined in relation to « parents ». In many traditional societies including Rwandan, you are a « child of a parent » (*Mwene runaka*). In the same way, you become a parent when you get a child. You are a « parent of a child » (*Papa or*

Mama runaka). In many orphanage, caregivers are mainly females. Children in orphanage call easily call one of them their « mother ». However, when it comes to specify a father, a child usually refers to orphanage name. Though age is another confusing factor for children in orphanage, whatever age you have, you are still a child if you live under the same roof with your parents. Living outside the roof of parents' home is an indicator of crossing the childhood sphere. Have they become adult by being moved out of their parents' roof and placed into orphanage? The child placed into orphanage is compelled to get new prominent indicators to orient his self-definition. The mental process of doing so starts by questioning the personal life story, the general humanity norms and the roles and responsibility called to fulfil as a child.

“Confusion about self” and “Enhanced self” were two contradictory categories identified through out coded segments as constituting self-description construct. “Confusion about self” (n=46) was significantly highly represented in coded segments than Enhanced self (n=16), $\chi^2 = 14.516$, $df = 1$, $p = .000$.

1.2.4.1 Confusion about self-image

The “Confusion about self” is the first self-description category that we identified. It intends to convey the uncertainty about child's essential being that distinguishes one from others or enable a child to define clearly who he/she is. Coded segments reflecting the confusion about self were grouped into three concepts: “Lost landmark”, “Role reversal” and “Worthlessness”.

a) Lost landmark

“Lost Landmark” includes all aspects, easily recognizable that usually enable someone to distinguish him/herself from others. Birth, names and family story were identified in the coded segments as lost landmark. Children questioned their own birth, wondering facts of their life beginning. This questioning is intensified by the doubt about the date of birth, place of birth or origin and names. Another lost landmark is family story. Text segments identified here refer to the uncertainty about whether biological parents are alive or dead, their living conditions and information about sibling.

“On the first of January, they tell us that it is our birthday! And we wonder how we all have

the same date of birth. Some of us are sure only about the year, but the date and month is doubtful”

“I was abandoned in the toilet by a girl who had come to sit for a national end of high school exam in the examination center neighboring this orphanage. Hundreds of girls coming all over the country were present. Do I come from the toilet?”

“My names have changed at least three times: Maybe my biological parents gave me the names at birth. At the age of one month, I was abandoned. In the first orphanage, I was admitted in, they gave me new names. At the age of four we were moved in this orphanage. Without any formal identification document, it’s a common practice here to name new entries. In that way, I was given a name reflecting my confusing origin”

b) Role Reversal

"Role Reversal" includes text segments indicating situations where participants esteemed that children have taken over parents' role by relying on themselves and forgetting the external support existence. Role reversal is also expressed in thinking they would support their parents who failed to do so in the future. Finally role reversal is expressed in feeling exploited in orphanage.

“I don’t have anywhere else to go, I have to start from zero to find everything: I chose study topic without parental advice, I study hardly without their motivations, I will rely on myself to get a job [...] and these would have been their responsibilities”.

“I came in orphanage because my parents were not able to cater for my needs, I live here bearing in mind that I will work hard ignoring subsequent adversity so that I can take care or support them once I grow up”.

“Here in orphanage, we eat crops we’ve cultivated. Orphanage staff are paid because we are here. Donors bring money because we are here. Parents are exempted to feed, clothe and educate us because they sent us here”.

c) Worthlessness

“Worthlessness” mentions texts where children highlighted the state of feeling unimportant or less useful than others. Some children feel unimportant that they dehumanize themselves by comparing themselves to objects. They argued they are useless, because only useless or worn objects may be abandoned like they were. Compared to children in families we found text segments which indicate that children in orphanage evaluated themselves as having less value than children in families. Finally, worthlessness was evidenced by the overall negative self-evaluation.

“In this orphanage, a child came from school at noon feeling hungry. He marauded one guava fruit from the garden. He was then sacked out forever from this orphanage. That’s means we worth less than 1 guava and by the way we are told to be foundlings, not human”.

“A child is a child only when he is in family who cares”

“Every time I remember I am in orphanage, I wonder why me, I become sad, regret why I was born, feel like living equals dying, because the person who were supposed to be the first in loving me hated me instead”

1.2.4.2 Enhanced self-image

“Enhanced self-image” denotes feeling good about oneself. Two concepts were used to group text segments through which participants expressed enhanced self-image: “Strong” and “Reconciled”.

a) Strong

“**Strong**” talks about having been "strengthened" by adverse events participants passed through during the process of institutionalization. Participants described institutionalization as the worst experience and that, subsequently, no harder life experience they would expect. Overall personal development, gaining living skills and performance at school are the domain of strength they mentioned. Strong referred also to adopting different way of thinking and learning from what happened to them.

"Our value is higher than the one of other children who had never been in orphanage. In

front of challenges, I am able to be patient and endure because I passed through many difficult situations [...] I am 12 and can't count how many different "mothers" I had in my life. But I was able to conform and adapt to their diverse and, in most instances, contradictory instructions".

"When you come from nowhere you can be anything, you can live anywhere like a superman"

"If I were a parent, I would not abandon my child".

b) Reconciled

"Reconciled" calls attention to the restoration of friendly relations with others and with personal life story. Participants said for example that they always do their best to have a rather positive image in order to look lovable and possibly gain pity of their parents or any well-intentioned adult. To reconcile, other children prefer to not blame anyone for their own fate. The last dimension of reconciled is the positive prospective. Participants indicated that they have hope to have good life in future.

"Before I knew my mother has died I was insulting her saying she is a very bad person, doesn't she know that I am suffering here, what should she tell me? And when I knew she has died, I laughed at myself".

"You never know what the child will be in the future; maybe I will be a president and the one who didn't care will come to request for support while they have given me nothing".

1.3 Theoretical model

Theoretical coding resulted in the identification of constructs and a theoretical model. In this section we first present the identified associations between categories and then the association between constructs which is herein referred to as the orphanization process.

1.3.1 Associations between categories

As highlighted before, we identified eight categories, contained in four constructs namely, absence of parents, sensing orphanage, modelling outside and self-description. Figure 6 represents these constructs and the frequency of the contained categories. Opposed categories were represented as negative and positive. Designation of categories as “opposed” indicates that a particular aspect of the text is opposed to another and does not imply the existence of an absolute pattern of total, permanent opposition (Rabinovich & Kacen, 2010).

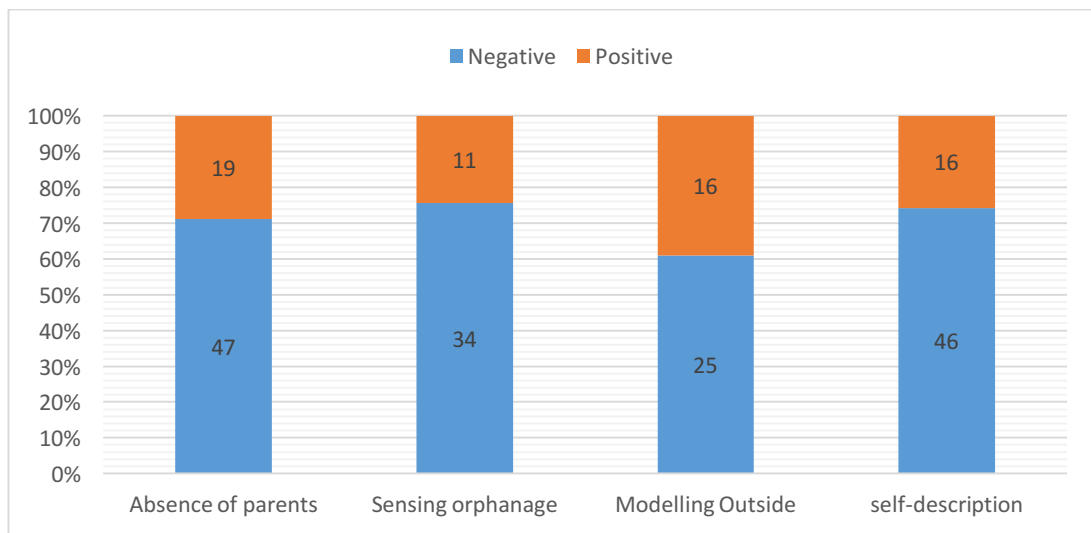


Figure 6. Frequency of identified constructs

Indeed, from the absence of parents to children's self-description constructs, we identified eight categories. Those eight categories may be grouped into two divergent pathways referred herein as positive and negative pathway as represented in figure 7. The two pathways are hypothetical.

On the one hand, “Positive pathway” consists of constructive, optimistic, and assured attributes to the orphanization process. “Positive pathway” incorporate the following categories: “Presentification of parents”, “Saving lives”, “Vivification of the outside” and “Enhanced self-image”. On the other hand, “Negative pathway” is consistent with destructive, pessimistic, and distrustful attributes to orphanization process. “Negative pathway” subsumes the following categories: “Absentification of parents”, “Making orphans”, “Mortification of outside”, and “Confusion about self”. “Negative pathway” (n=152) was significantly highly represented in the

coded text segments than positive pathway (n=62), chi-square = 37.850, df = 1 p=.000. This means that once placed into orphanage, a child is more likely to adopt a “Negative pathway”.

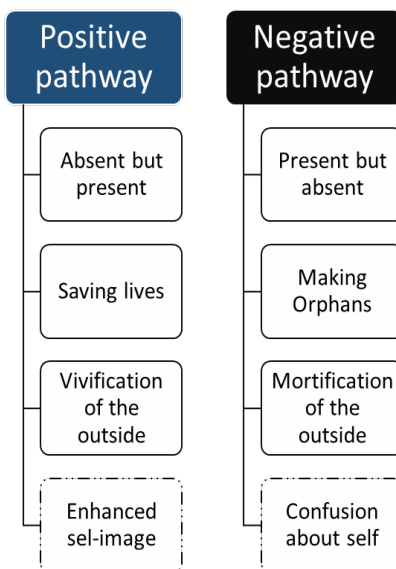


Figure 7. Positive and negative pathways in orphanization process

1.3.2 Orphanization process

In this section, we present the identified association between constructs. These associations denote temporal relationships as well as causal relationship indicating respectively that one construct precedes another and one construct is the reason for another (Charmaz, 2006). As can be seen from the figure 8, orphanization process starts by the absence of parents. In the absence of parents, the child ends up out of family environment. Orphanage may be one option among others to receive children who slip through the social safety net. Once placed into this new out of family setting, children begin to give sense to the orphanage. In parallel, they give sense or model the outside orphanage world. This entire process will result into the adjustment of self.

From this identified process, we formulated a series of hypotheses considering adjustment of self as the outcome. However, it is worthy to note that all assumptions remain hypothetical. There is a need of a further step to perform inferential tests in order to verify these hypotheses.

We first hypothesize that the more a child conceives positively the absence of parents, the more

the child will have a positive self-description. Conversely, the more a child conceives negatively the absence of parents, the more the child will have a negative self-description. The strength of the relationship between absence of parents and child's self-description will depend on children's perceptions on orphanage and outside world. The relationship would be stronger in case the child perceives the orphanage as a savior and the outside is vivified while it would be weaker in case the child perceives the orphanage as orphanizer. There should be several hypothetical relations between the absence of parents and children's self-description as well as several interactions depending on the level of perceptions to orphanage (savior or orphanizer) and outside (mortified or vivified). These hypotheses are represented in the figure 8 which constitute a hypothetical theoretical model of orphanization.

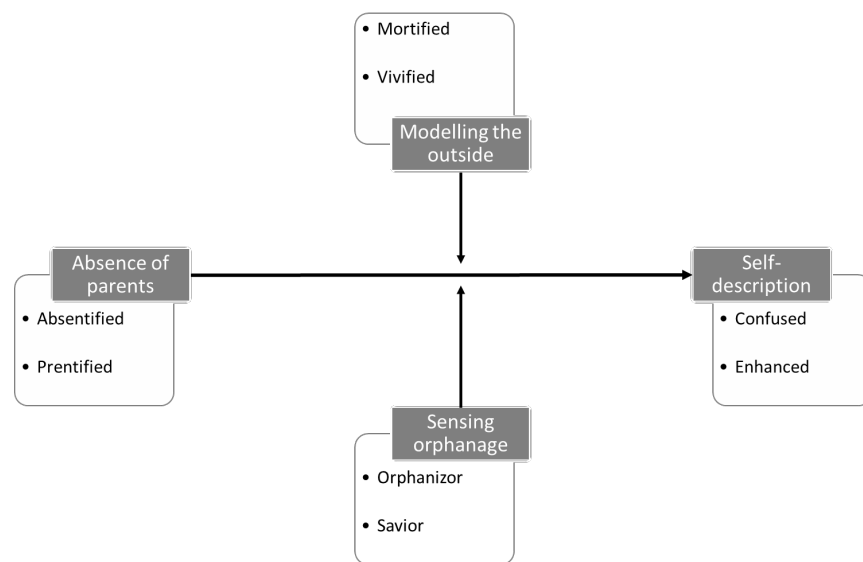


Figure 8. Theoretical model of orphanization process.

2. Study 2: Institutionalization and parents living status

In this study, a cross-sectional design was used to compare psychological adjustment of institutionalized children and never-institutionalized children. As the majority of studies on the impact of parental death for childhood well-being have been conducted almost only among children who currently reside in the family with their surviving parent or another family member (Shaw et al., 2015), we also assessed the influence of parental living status among institutionalized children. Age and gender of participants were controlled. Psychological adjustment was measured by externalizing and internalizing behavior as well as self-esteem. Results are presented below variable by variable meaning specific hypothesis related to externalizing, internalizing and self-esteem are tested separately. For each dependent variable, relevant hypothesis and statistics used to test it are recalled before presenting results.

2.1 Externalizing behavior

Hypothesis:

- (a) Institutionalized children have more externalizing behavior than non-institutionalized children.
- (b) Institutionalized children without parents have more externalizing behavior than institutionalized children with parents while there is no significant difference in externalizing behavior between non-institutionalized children with and without parents.

To test the above hypothesis, a two-way ANCOVA was performed with institutionalization (institutionalized and non-institutionalized) and biological living status (alive and deceased) as independent variables and externalizing behavior as dependent variable. Age were controlled as a co-variable. Clinical and socio-demographic scores are presented in Table 5.

Table 5 Socio-demographic and clinical scores for participants in study 1

<i>Variables</i>	Institutionalized						Non-institutionalized						Total	
	Non-orphans (n=46)		Orphans (n=47)		Total (n=93)		Non-orphans (n=54)		Orphans (n=28)		Total (n=82)		(N=175)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Sex (Girl/Boy)	20/26		19/28		39/54		25/29		16/12		41/41		80/95	
Age	12.70	2.11	13.21	1.86	12.96	2.00	11.80	1.84	13.30	1.90	12.30	1.98	12.65	2.01
Time spent in institution	9.09	4.37	8.30	4.20	8.69	4.28	-	-	-	-	-	-	-	-
Age at placement	3.60	3.67	4.91	4.13	4.26	3.94	-	-	-	-	-	-	-	-
Self-esteem	56.70	13.22	59.70	13.60	58.20	13.40	68.00	14.40	57.80	12.60	64.50	14.60	61.20	14.30
Externalizing	13.90	10.30	9.34	7.95	11.60	9.42	8.05	5.15	8.96	5.88	8.36	5.40	10.00	7.94
Agressive behavior	8.32	6.26	5.08	4.43	6.68	5.62	5.05	3.88	5.14	3.02	5.08	3.59	5.93	4.83
Rule-breaking behavior	5.58	4.43	4.25	3.90	4.91	4.20	3.00	2.31	3.82	3.55	3.28	2.80	4.14	3.70
Internalizing	9.63	7.27	9.50	7.95	9.56	7.58	10.94	6.25	12.23	9.80	11.37	7.60	10.42	7.62

After controlling for the effect of participants' age, we found a statistically significant main effect of institutionalization on externalizing behavior, $F(1,175) = 5.56$, $p = .019$, and parental living status, $F(1,175) = 4.83$, $p = .029$. Adjusted means showed that institutionalized children had significantly more externalizing behavior problems than non-institutionalized children.

The interaction effect of institutionalization and the parents' living status on externalizing behavior problems was also statistically significant, $F(1,175) = 3.93$, $p = .049$. (see Figure 8A). Post hoc tests revealed at the corrected alpha-level of 0.025 that in institutions, children with living biological parents have significantly more externalizing problems than children with deceased parents ($F(1,170) = 10.2$, $p = .002$), while not-institutionalized children with living parents and with deceased parents do not differ significantly with regards to externalizing behavior problems ($p = .861$). Age was significantly positively related to externalizing behavior (Beta = .82, $t(170) = 2.77$, $p = .006$). Independently of institutionalization status, the older the children are, the greater will be their externalizing behavior problems. There was no significant effect of gender (Beta = .25, $t(169) = .22$, $p = .828$).

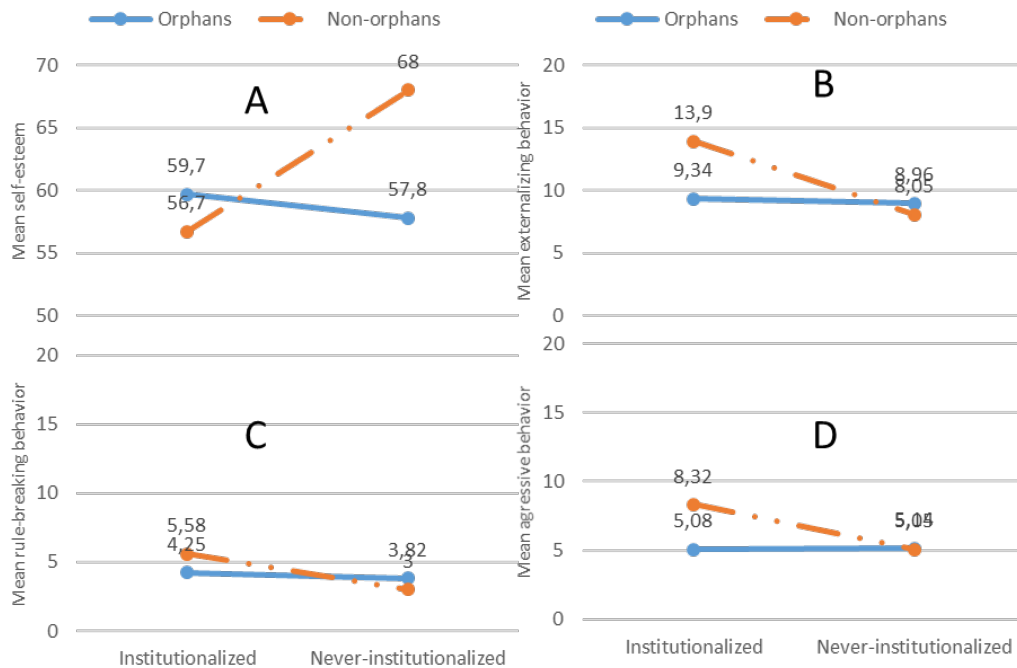


Figure 9. Interaction effect of institutionalization and parental living status on self-esteem (A), externalizing behavior (B), rule-breaking (C) and aggressive behavior (D).

2.1.1. Subscales of externalizing behavior

The main effect of institutionalization was significant for both aggressive behavior ($F(1,175) = 4.88, p = .028$) and rule-breaking behavior ($F(1,175) = 7.25, p = .008$). Adjusted means analyses indicate that institutionalized children have significantly more aggressive behavior and more rule-breaking behavior than non-institutionalized children. The interaction effect of institutionalization and the parents' living status was statistically significant on aggressive behavior, $F(1,175) = 4.70, p = .031$, and not significant for rule-breaking behavior ($F(1,175) = 4.88, p = .057$) (see Figure 8 c and d). Follow up tests revealed, at the corrected alpha-level of 0.025, that in institution, children with living parents have higher aggressive behavior than children with deceased parents ($p < .001$). For not institutionalized children there was no significant difference in aggressive behavior between children with living parents and children with deceased parents ($p = .675$).

3.2 Internalizing behavior

Hypothesis:

- (a) Institutionalized children have more internalizing behavior than non-institutionalized children.
- (b) Institutionalized children without parents have more internalizing behavior than institutionalized children with parents while there is no significant difference in internalizing behavior between non-institutionalized children with and without parents.

To test the above hypothesis, a two-way ANCOVA was performed with institutionalization (institutionalized and non-institutionalized) and biological living status (alive and deceased) as independent variables and internalizing behavior as dependent variable. Age were controlled as a co-variable. Clinical and socio-demographic scores are presented in Table 5.

ANCOVA results showed a statistically significant interaction between age and institutionalization, $F(1,171) = 5.482, p = .020$. Figure 9B displays this interaction.

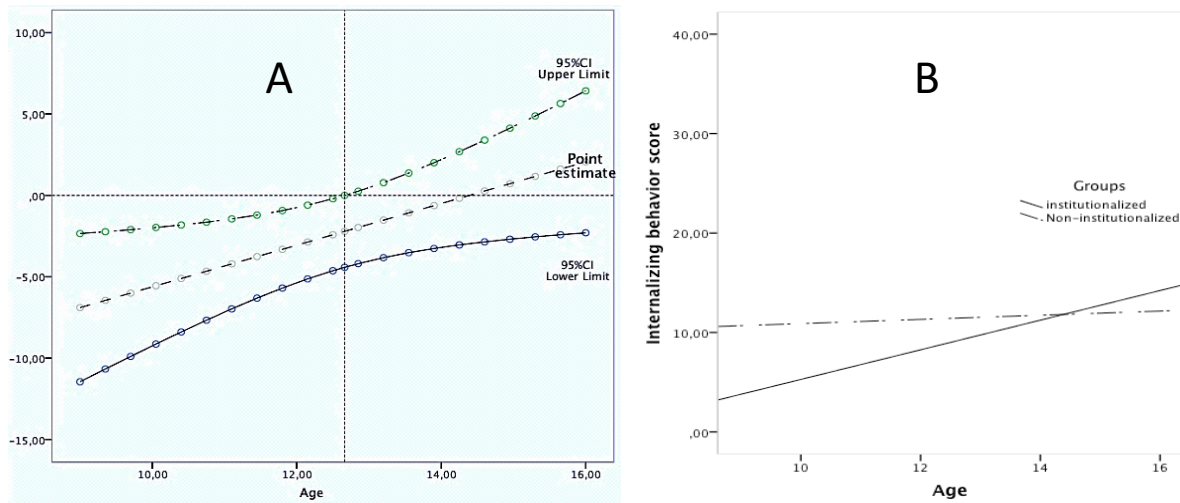


Figure 10. (A) 95% confidence interval on the difference in internalizing score between institutionalized and non-institutionalized children as a function of age; (B) Scatter Plot of internalizing score institutionalized and non-institutionalized children by age

Since the interaction between age and parents living status was statistically significant, $F(1,171) = .933, p = .007$, but not theoretically relevant to our research questions, only the association between institutionalization and age, which is positive for institutionalized children, is reported.

Institutionalized, children's internalizing behavior tend to increase with the age. Not-institutionalized children group, however, displayed a different pattern. Their slopes were flat which indicate that they tend to have the same internalizing score over the time. To determine in what region of age is the difference between two group means statistically significant, we performed the Johnson-Neyman technique (Hayes, 2013), developed to determine the region of significance for a covariate when the parallel slopes assumption does not hold in an ANCOVA context (Hayes, 2013). Age value defining Johnson-Neyman significance region was 12.63, Beta = -2.253, $t(170) = -1.976$, $p = .050$). The predicted difference and its associated 95% confidence interval are displayed visually in Figure 9A. In the region where age is less than or equal to 12.63, internalizing behavior score is statistically significantly higher in non-institutionalized children than that in institutionalized children (the confidence bands are entirely below zero). On the other hand, in the region where age is greater than or equal to 12.63, internalizing behavior score is not statistically significantly different between institutionalized children and non-institutionalized children. From 14.60 years, institutionalized children have higher internalizing behavior problems than non-institutionalized children though not statistically significant, Beta = .271, $t(170) = .142$, $p = .887$). Out of all 175 participants in our sample, 90 children (51.4%) have their age lower than or equal to 12.63 and 85 children (48.6%) have the age higher than or equal to 12.63.

3.3. Self-esteem

Hypothesis:

(a) Institutionalized children have lower self-esteem than non-institutionalized children. (b) Institutionalized children without parents have lower self-esteem than institutionalized children with parents while there is no significant difference in self-esteem between non-institutionalized children with and without parents.

To test the above hypothesis, a two-way ANCOVA was performed with institutionalization (institutionalized and non-institutionalized) and biological living status (alive and deceased) as independent variables and self-esteem as dependent variable. Age were controlled as a co-variable. Clinical and socio-demographic scores are presented in Table 5.

After controlling for the effect of participants' age, there was a statistically significant main effect of institutionalization on self-esteem ($F(1,175) = 4.16, p = .043$), while the main effect of parental living status was not significant ($F(1,175) = 1.60, p = .209$). According to adjusted means, institutionalized children had statistically significantly lower self-esteem than non-institutionalized children. The interaction between institutionalization and the parents' living status was also statistically significant ($F(1,175) = 8.36, p = .004$) (see Figure 8A). Follow up tests evidenced, at the corrected alpha-level of 0.025, that for institutionalized children there were no significant difference in self-esteem between children with living biological and children with deceased parents ($p = .230$). For not institutionalized children however, we found that children with living parents had significantly higher self-esteem than children with deceased parents ($p = .007$). Finally, age was not significantly related to self-esteem (Beta = $-.91, t(170) = -1.69, p = .092$); and there was no significant effect of gender on self-esteem (Beta = $-2.16, t(170) = -1.03, p = .303$).

3. Study 3: Deinstitutionalization effect and prediction of outcomes in family

Table 6 Means and standard deviation for externalizing behavior, internalizing behavior, self-esteem and attachment related problems by institutionalization status, parental living status and time.

Institutionalization status	Parental status	N	Externalizing				Internalizing				Self-esteem				Attachment			
			Before		After		Before		After		Before		After		Before		After	
			M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Non-institutionalized	Non-orph.	51	8.21	5.52	9.31	6.90	11.2	6.31	11.6	7.73	68.0	14.0	64.7	13.0	27.7	5.67	29.0	7.06
	Orphans	25	8.38	4.87	10.5	8.33	11.8	9.72	15.0	9.59	56.8	12.5	64.0	15.6	30.2	6.53	30.2	9.16
	Total	76	8.27	5.28	9.70	7.38	11.4	7.56	12.7	8.49	64.3	14.4	64.5	13.8	28.6	6.03	29.4	7.77
Deinstitutionalized	Non-orph.	13	18.9	11.3	19.7	11.3	14.0	9.76	23.2	14.9	53.1	10.9	66.8	11.9	33.2	5.54	28.7	5.52
	Orphans	23	10.4	9.77	8.49	7.06	9.91	8.77	17.8	11.4	57.9	15.3	66.5	11.8	34.6	6.48	31.1	7.98
	Total	36	13.18	10.89	12.1	10.00	11.2	9.16	19.6	12.6	56.2	13.9	66.6	11.7	34.1	6.11	30.2	7.20
In institution	Non-orph.	25	10.0	7.38	8.47	6.09	7.12	5.57	7.14	4.77	58.6	12.5	64.4	9.91	32.8	6.21	31.7	8.07
	Orphans	16	7.33	5.91	7.05	2.97	7.93	4.76	7.99	3.66	61.7	13.6	65.0	12.3	33.0	4.35	30.4	5.40
	Total	41	9.05	6.93	7.95	5.17	7.41	5.24	7.45	4.37	59.8	12.9	64.6	10.8	32.9	5.50	31.2	7.10
Total	Non-orph.	89	10.1	7.71	10.3	8.07	10.4	6.93	11.7	9.44	63.2	14.3	64.9	12.0	30.0	6.30	29.7	7.20
	Orphans	64	8.88	7.21	8.97	6.99	10.2	8.47	14.4	9.94	58.4	13.8	65.1	13.4	32.5	6.26	30.6	7.83
	Total	153	9.57	7.51	9.77	7.64	10.3	7.58	12.8	9.71	61.2	14.2	65.0	12.5	31.0	6.38	30.1	7.45

Study 3 was a longitudinal study evaluating the effect of deinstitutionalization and predicting psychological adjustment outcome in family. Psychological adjustment measured by externalizing and internalizing behavior, attachment and self-esteem were compared before and after deinstitutionalization among three groups namely never-institutionalized children, deinstitutionalized children and children in institution. A particular attention is paid to the influence of parental living status. A mixed-design ANOVA was used to analyze data. Further on, multiple regression is performed to assess the predictive value of child and family characteristics including family relationships, parenting, quality of life, economic category, self-efficacy and time spent in family. This section presents the results variable by variable and hypothesis by hypothesis as usual. As done in the previous study, for each dependent variable, relevant hypothesis and statistics used to test it are recalled before presenting results.

3.1 Externalizing behavior

3.1.1 Hypothesis A1:

(a) Deinstitutionalized children have less externalizing behavior problems than children in institution and the same level as never-institutionalized children. (b) After deinstitutionalization, externalizing behavior problems decrease among deinstitutionalized children while it remains the same for never-institutionalized children and for children in institution. (c) Non-orphans deinstitutionalized children have better outcome than deinstitutionalized orphans.

To test the above hypothesis, data were analyzed using a mixed-design ANOVA with Time (before, after deinstitutionalization) as a within-subjects factor and institutionalization status (never-institutionalized, deinstitutionalized, in institution) and biological parents living status (non-orphan, orphan) as between-subjects factors. Externalizing behavior problems was dependent variable. Clinical scores are presented in Table 6.

Results showed significant predicted main effect of institutionalization status on children's externalizing behavior, $F(2, 147) = 11.8, p < .001, r = .27$. As can be seen on figure 11 (A), Games-Howell Post Hoc Test indicated that externalizing behavior problems were higher for deinstitutionalized children than for never-institutionalized ($p < .001$) and children in institution

($p < .001$), but externalizing behavior problems did not differ significantly between never-institutionalized children and children who remained in institution ($p = .653$).

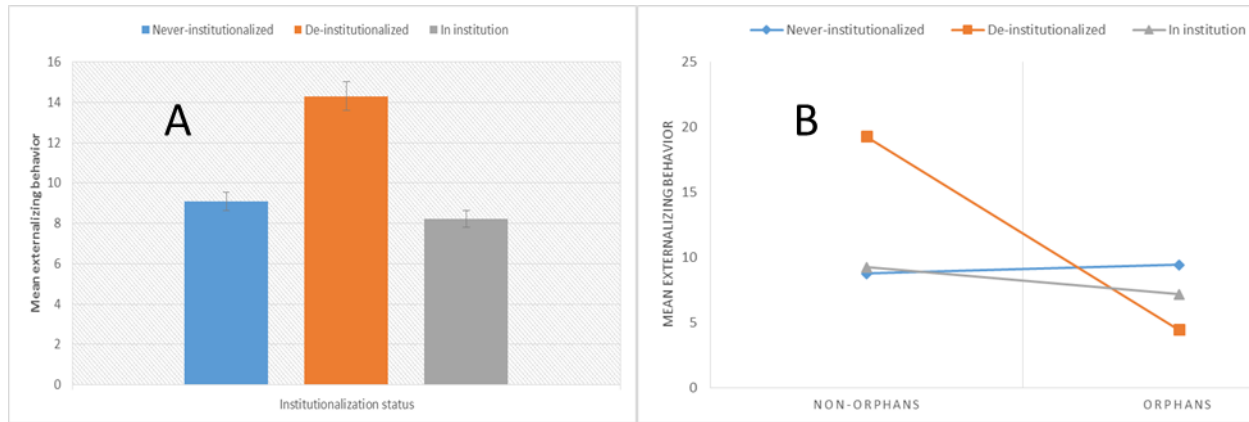


Figure 11. Main effect (A) of institutionalization status and interaction effect (B) of institutionalization and biological living status on externalizing behavior.

The main effect of biological living status was significant, $F(1, 147) = 13.4, p < .001, r = .28$ as was the interaction between institutionalization status and biological living status, $F(1, 147) = 9.12, p < .001, r = .24$. This interaction is represented in figure 11 (B). As can be seen, among never-institutionalized children and children who remained in institution, orphans and non-orphans had the same level of externalizing behavior, with respectively, $p = .615$ and $p = .258$. Among deinstitutionalized children, non-orphans had higher level of externalizing behavior than orphans, $p < .001$.

For non-orphans, de-institutionalized children had more externalizing behavior than never-institutionalized, $p < .001$ and children who remained in institution, $p < .001$, while there was no significant difference between never-institutionalized children and children who remained in institution, $p = .714$. The contrast of orphans was not significant, $F(2, 147) = .933, p = .396$. Among orphans, never-institutionalized children had the same level of externalizing behavior as deinstitutionalized children, $p = .987$, and children who remained in institution, $p = .218$; as well, de-institutionalized children had the same level of externalizing behavior as children who remained in institution, $p = .224$.

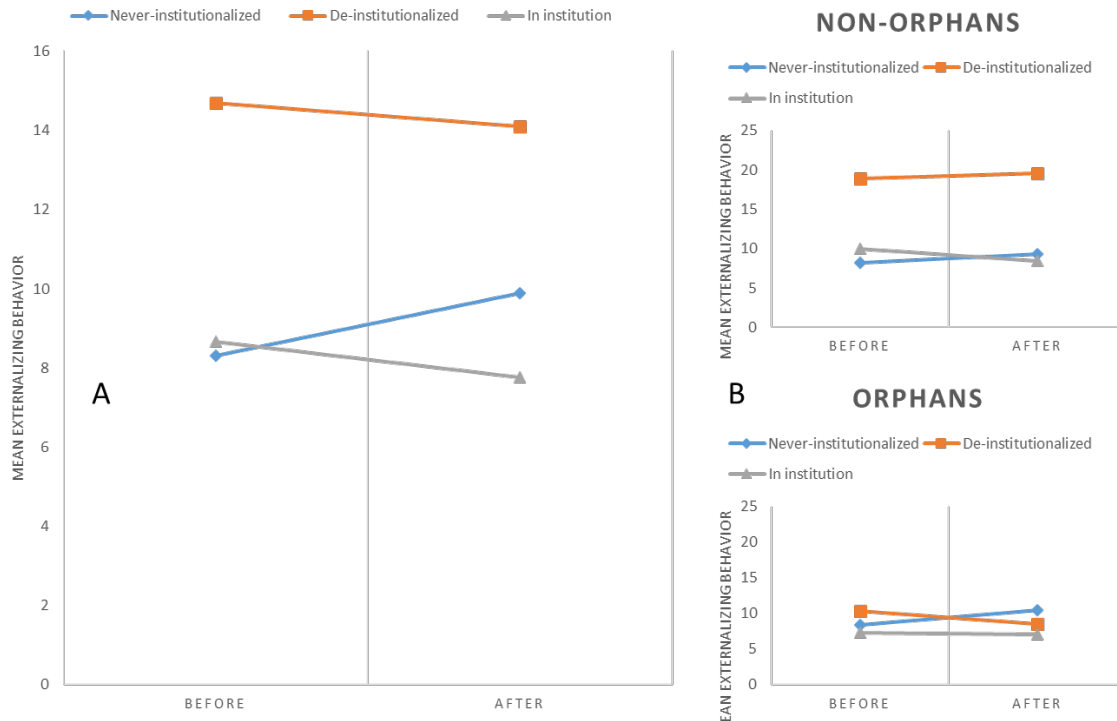


Figure 12. Interaction effect of time and institutionalization status (A) and biological living status (B) on externalizing behavior.

All main and interaction effects on externalizing behavior involving time were not significant, $F \leq 1.27$, $p \geq .284$, $r \leq .09$. The main effect of time, $F(1, 147) = .001$, $p = .975$, $r = .00$; the predicted interaction between time and institutionalization status, $F(1, 147) = 1.27$, $p = .284$, $r = .09$; unpredicted interaction between time and biological living status, $F(1, 147) = .007$, $p = .936$, $r = .00$; and the three way interaction between time, institutionalization status and biological parents living status, $F(2, 147) = .541$, $p = .583$, $r = .06$ were not significant (see Figure 12).

3.1.2 Hypothesis B1:

3.1.2.1 Hypothesis B1a

For deinstitutionalized children and never institutionalized children, (a) parenting involvement, family relations, parental quality of life, family economy, child's self-efficacy, time spent in family and institutionalization status predict the level of children's externalizing behavior and specifically (b) parental quality of life affect children's externalizing behavior through its effect on family relations.

To assess part (a) of the above hypothesis, i.e. the predictive role of Family relations, parenting practices, Economic category, Quality of life, Time spent in family, child's Self-efficacy and institutionalization status in child's externalizing behavior, a standard multiple regression was conducted with externalizing behavior as the dependent variable. Inter-correlations between the multiple regression variables are shown in Table 7. As can be seen, externalizing behavior was significantly correlated with half of independent variables included in the model. Each independent variable was significantly correlated by at least one other independent variable.

Table 7 Inter-correlations between the multiple regression variables and externalizing scores

	2	3	4	5	6	7	8
1 Externalizing	-.434**	.029	-.187*	-.279**	-.012	-.093	.092
2 Family relationships	--	.101	.001	.126	.030	.121	-.090
3 Parenting		--	-.227*	.114	.272**	-.023	.039
4 Economic category			--	.234*	.110	.318**	-.324**
5 Quality of life				--	-.028	.101	-.188*
6 Self-efficacy					--	-.059	.077
7 Time in Family						--	-.970**
8 Inst. status							--

Note: correlations greater than $\pm .17$ are significant at $p < .05$ (2-tailed) and correlations $\pm .26$ are significant at $p < .01$ (2-tailed); N = 96

The prediction model was statistically significant, $F(7, 84) = 4.317$, $p < .001$, and accounted for approximately 27% of the variance of externalizing behavior ($R^2 = .265$, Adjusted $R^2 = .203$).

Externalizing behavior was primarily predicted by lower levels of family relationships, and to a lesser extent by lower levels of parents' perceived quality of life. The raw regression coefficients of the predictors together with their structure coefficients, are shown in Table 8. Though, economic category was significantly correlated with externalizing behavior, it was not a significant predictor in the model, and so were, parenting involvement, child's self-efficacy and time spent in family. Examination of the structure coefficients shows that significant predictors (Family relationships and Quality of life) are indicators of the underlying (latent) variable described by the model.

Table 8 Bootstrapped regression coefficients for externalizing behavior

	<i>b</i>	<i>Biais</i>	<i>SE-b</i>	<i>p</i>	<i>sr</i>
Constant	44.2	-.786	7.95	.001	
Family relationships	-1.31	.038	.392	.001	-.831
Parenting	.059	.002	.078	.452	.123
Economic category	-1.27	.063	1.181	.173	-.283
Quality of life	-.113	.004	.052	.033	-.446
Self-efficacy	-.004	-.005	.058	.940	-.012
Time in family	-.012	.002	.035	.754	.051
Inst. status	-2.44	.276	6.02	.683	.178

Note. The dependent variable was externalizing behavior. $R^2 = .265$, Adjusted $R^2 = .203$.

sr is the structure Coefficients: correlations of the predictors in the model with the overall predictor variate (Pearson correlation between the predictor and the criterion variable divided by the multiple correlation); N = 96

3.1.2.2 Hypothesis B1 b

For deinstitutionalized children and never institutionalized children, (a) parenting involvement, family relations, parental quality of life, family economy, child's self-efficacy, time spent in family and institutionalization status predict the level of children's externalizing behavior and specifically (b) parental quality of life affect children's externalizing behavior through its effect on family relations.

To assess part (b) of the above hypothesis, regression analysis was used to investigate whether family relationships mediates the effect of caregiver's perceived quality of life on children's externalizing behavior.

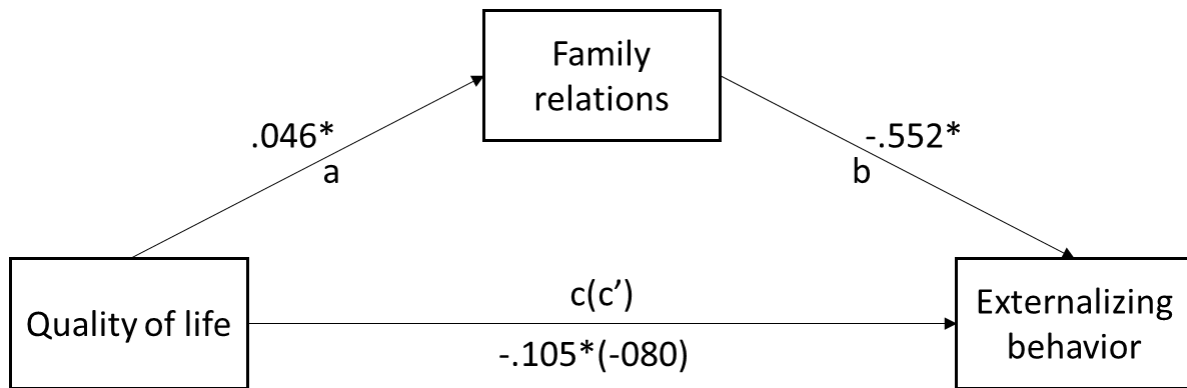


Figure 13. Simple mediation model for the relationship between quality of life and externalizing behavior of children as mediated by family relationships.

As can be seen on Figure 13, the regression of quality of life on externalizing behavior problems, ignoring family relationships as mediator, was negatively significant ($c = -.105$, $t(109) = -2.190$, $p = .031$) and accounted for significant variance in children's externalizing behavior, $R^2 = .042$, $F(1,110) = 4.735$, $p = .034$. Quality of life was a significant positive predictor of family relationships ($a = .046$, $t(109) = 2.419$, $p = .017$) and family relationships was a significant negative predictor of children's externalizing behavior ($b = -.552$, $t(108) = -2.313$, $p = .023$). Quality of life was no longer a significant predictor of children's externalizing behavior after controlling for family relationships, $c' = -.080$, $t(108) = -1.656$, $p = .101$. Quality of life accounted for significant variance in the family relationships, $R^2 = .051$, $F(1,110) = 5.852$, $p = .017$. Quality of life and family relationships accounted for significant variance in the children's externalizing behavior, $R^2 = .087$, $F(2,109) = 5.167$, $p = .007$.

A bootstrap 95% confidence interval for the indirect effect of quality of life ($ab = -.025$) using 10,000 bootstrap samples was $-.066$ to $-.003$, meaning that there was evidence of an indirect effect of quality of life on externalizing behavior through family relationship.

3.2 Internalizing behavior

3.2.1 Hypothesis A2:

(a) Deinstitutionalized children have less internalizing behavior problems than children who remained in institution and the same level as never-institutionalized children. (b) After deinstitutionalization, internalizing behavior problems decrease among deinstitutionalized children while it remains the same for never-institutionalized children and for children who remained in institution. (c) Non-orphans deinstitutionalized children have better outcome than deinstitutionalized orphans.

To test the above hypothesis, data were analyzed using a mixed-design ANOVA with Time (before, after deinstitutionalization) as a within-subjects factor and institutionalization status (never-institutionalized, deinstitutionalized, in institution) and biological parents living status (non-orphan, orphan) as between-subjects factors. Internalizing behavior problems was dependent variable. Clinical scores are presented in Table 6.

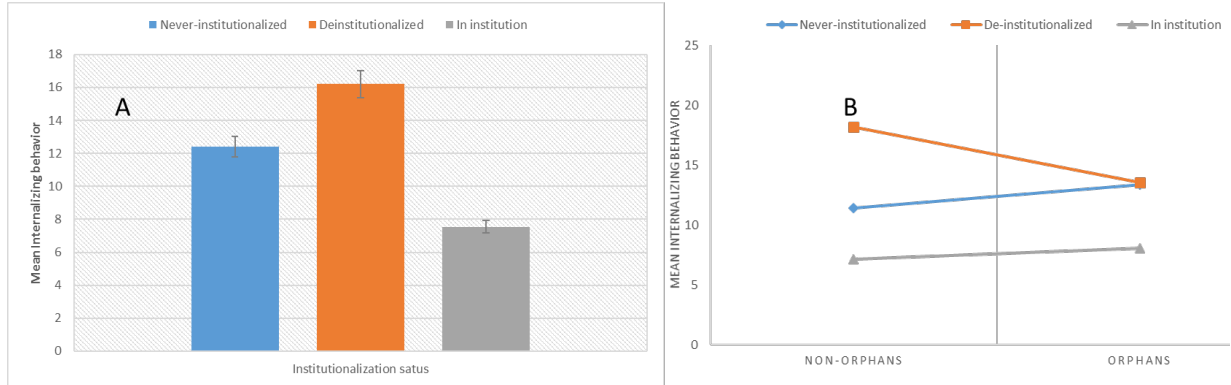


Figure 14. Main effect (A) of institutionalization status and interaction effect (B) of institutionalization and biological living status on internalizing behavior.

Results showed significant main effect of institutionalization status on children's internalizing behavior, $F(2, 147) = 15.8, p < .001, r = .31$. As can be seen on Figure 14A, Games-Howell Post Hoc Test indicated that internalizing behavior problems were higher among deinstitutionalized children than never-institutionalized children ($p = .020$) and children who remained in institution ($p < .001$). As well, the latter group had significantly less internalizing behavior than never-institutionalized children ($p = .001$).

The main effect of Time was significant, $F(1, 147) = 14.7, p < .001, r = .30$, as was the interaction between time and institutionalization status, $F(1, 147) = 6.91, p = .001, r = .21$. As can be seen on Figure 15, never-institutionalized children and children who remained in institution had the same level of internalizing behavior problems before (at T_1) and after de-institutionalization (at T_2), respectively with $p = .140$ and $p = .981$. Deinstitutionalized children had significantly more internalizing problems after deinstitutionalization than before, $p < .001$. Before, children who remained in institution had lower internalizing behavior problems than deinstitutionalized children, $p = .016$ and never-institutionalized children, $p = .009$ whereas the latter group had equally internalizing behavior as deinstitutionalized children, $p = .784$. After deinstitutionalization, children who remained in institution had lower internalizing behavior problems than deinstitutionalized children, $p < .001$ and never-institutionalized children, $p = .001$ whereas the latter group had less internalizing behavior than deinstitutionalized children, $p < .001$.

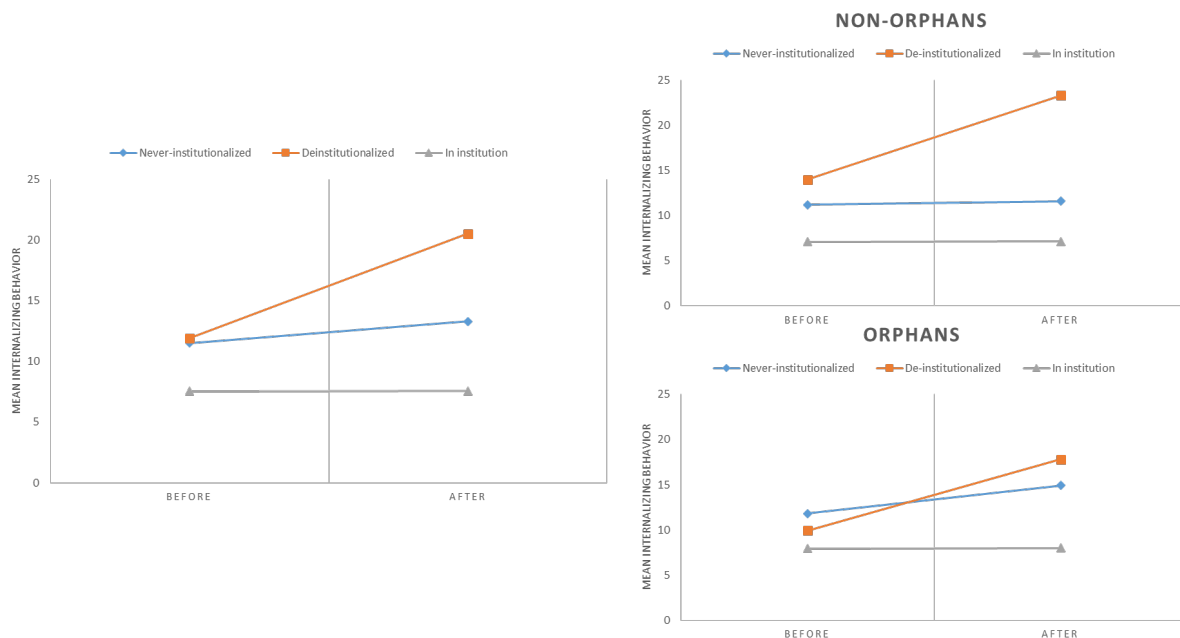


Figure 15. Interaction effect of time and institutionalization status (left) and biological living status (right) on internalizing behavior.

The main and all interactions involving biological parents were not significant, all $F \leq 2.92, p \geq .057, r \leq .14$ (see Figure above). The main effect of biological parents living status, $F(1, 147) = .308, p = .580, r = .04$; the interaction between institutionalization status and biological living parents, $F(2, 147) = 2.92, p = .057, r = .14$; the interaction between time and biological living

status $F(1, 147) = .081, p = .776, r = .02$; and the three way interaction between time, institutionalization status and biological living status, $F(2, 147) = .539, p = .585, r = .05$ were not significant.

3.2.2 Hypothesis B2:

3.2.2.1 Hypothesis B2a:

For deinstitutionalized children and never institutionalized children, (a) parenting involvement, family relations, parental quality of life, family economy, child's self-efficacy, time spent in family and institutionalization status predict the level of children's internalizing behavior and specifically (b) the effect of family relationships on child's internalizing behavior problems depends on the level of parenting involvement and perceived quality of life while controlling for the influence of family economic category and the time a child spent in family.

To assess part (a) of the above hypothesis, i.e. the predictive role of Family relations, Parenting practices, Economic category, Quality of life, Time spent in family, child's Self-efficacy and institutionalization status in child's internalizing behavior, a standard multiple regression was conducted with externalizing behavior as the dependent variable. Inter-correlations between the multiple regression variables are shown in Table 3. As can be seen, internalizing behavior was significantly correlated with all independent variables in the model excluding parenting and self-efficacy. Each independent variable was significantly correlated by at least one other independent variable.

Table 9 Inter-correlations between the multiple regression variables and internalizing scores

	2	3	4	5	6	7	8
1 Internalizing	-.441**	-.003	-.258**	-.471**	-.014	-.314**	.334**
2 Family relationships	--	.088	.053	.179*	.006	.172*	-.143
3 Parenting		--	-.268**	.83	.243**	-.023	.046
4 Economic category			--	.228*	.069	.324**	-.322**
5 Quality of life				--	-.075	.130	-.207*
6 Self-efficacy					--	-.080	.106
7 Time in Family						--	-.968**
8 Instit. status							--

Note: correlations greater than $\pm .17$ are significant at $p < .05$ (2-tailed) and correlations $\pm .26$ are significant at $p < .01$ (2-tailed); $N = 97$

The prediction model was statistically significant, $F(7, 86) = 8.647$, $p < .001$, and accounted for approximately 41% of the variance of internalizing behavior ($R^2 = .413$, Adjusted $R^2 = .365$).

Internalizing behavior was primarily predicted by lower levels of family relationships, and to a lesser extent by lower levels of parents' perceived quality of life. The raw bootstrapped regression coefficients of the predictors are shown in Table 10. Internalizing behavior was also predicted by shorter time spent in family. Though, economic category was negatively significantly correlated with internalizing behavior, it was not a significant predictor in the model. Parenting was not a significant predictor of child's internalizing behavior.

Table 10 Regression coefficients for internalizing behavior

	<i>b</i>	<i>Biais</i>	SE-b	<i>p</i>	<i>sr</i>
Constant	51.4	.286	9.70	.001	
Family relationships	-1.29	.025	.345	.002	-.685
Parenting	.042	.005	.101	.674	-.004
Economic category	-1.05	.042	1.37	.450	-.400
Quality of life	-.226	.001	.067	.001	-.733
Self-efficacy	-.053	-.002	.066	.416	-.021
Time in family	.018	.000	.042	.639	-.487
Instit. status	7.13	-.038	6.85	.273	.535

Note. The dependent variable was internalizing behavior. $R^2 = .413$, Adjusted $R^2 = .365$.

sr is the structure Coefficients: correlations of the predictors in the model with the overall predictor variate (Pearson correlation between the predictor and the criterion variable divided by the multiple correlation); $N = 97$

3.2.2.2 Hypothesis B2b:

For deinstitutionalized children and never institutionalized children, (a) parenting involvement, family relations, parental quality of life, family economy, child's self-efficacy, time spent in family and institutionalization status predict the level of children's internalizing behavior and specifically

(b) the effect of family relationships on child's internalizing behavior problems depends on the level of parenting involvement and perceived quality of life while controlling for the influence of family economic category and the time a child spent in family.

To test part (b) of the above hypothesis, a multiple regression analysis was conducted to test whether caregiver's parenting involvement and perceived quality of life moderate the relationship between family relationships and child's internalizing behavior problems while controlling for family economic category and the time a child spent in family (see Figure 16A). We performed a regression analysis with child's internalizing behavior as dependent variable and family relationships, parenting involvement, quality of life, two new variables created as the product of family relationships and parenting involvement, and family relationships and quality of life as regressors. We also included family economic category and the time a child spent in family as covariates. To avoid potentially problematic high multi-collinearity with the interaction term, the variables were centered and two interaction terms were created (Aiken & West, 1991).

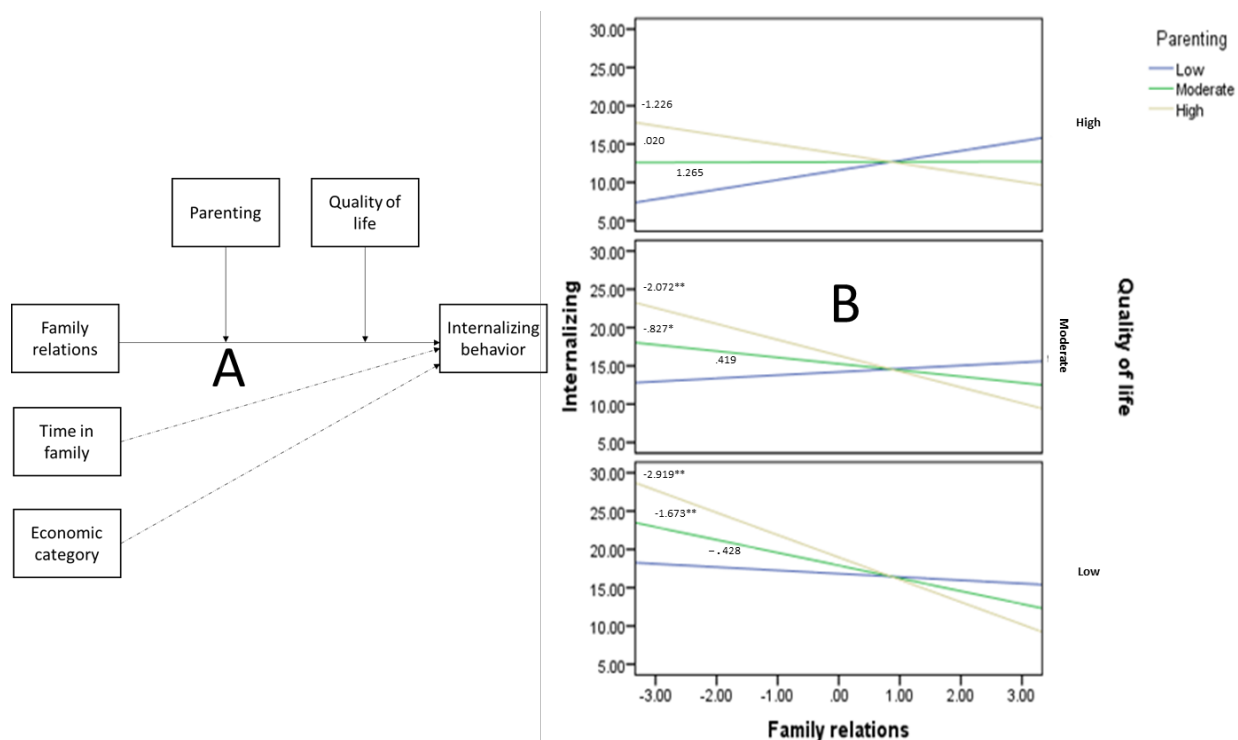


Figure 16. Conceptual visualization (A) of moderation of the effect of family relations on child's internalizing behavior by parenting involvement and perceived quality of life controlling for economy and time spent in family and the conditional effect (B) of family relations on internalizing behavior at values of the quality of life and parenting.

The total model accounted for 36% of variance in child's internalizing behavior problems, $F(7, 88) = 7.078, p < .001$. The coefficient for family relationships was significant, $b = -.827, t(88) = .333, p = .015$, and so was the coefficient for quality of life, $b = -.167, t(88) = -2.881, p = .005$. The coefficient for parenting involvement was not significant, $b = .119, t(88) = .110, p = .282$ and so was coefficients for both covariates. Time spent in family, $c1 = -.015, t(88) = -1.255, p = .213$, and family economic category, $c2 = -.814, t(88) = -.753, p = .453$.

The two interaction terms as a set accounted for 8.5% of the variance in child's internalizing behavior problems, $F(2, 88) = 5.832, p = .004$. Coefficient for the interaction between family relationships and parenting involvement was significant $b = -.139, t(88) = -2.965, p = .004$; and so was the coefficient for the interaction between family relationships and quality of life, $b = .054, t(88) = 2.279, p = .025$ meaning that parenting involvement and quality of life functions as moderators of the effect of family relations on children's externalizing behavior. The moderation by parenting involvement uniquely accounted for 6.4% of the variance [$F(1,88) = 8.790, p = .004$], whereas the moderation by quality of life uniquely accounted for 3.8% of the variance, $F(1,88) = 5.192, p = .025$.

Interactions were probed using simple slopes analysis using Pick-a-point approach (Bauer & Curran, 2005), a dominant method used when probing interactions in a linear model in the behavioral sciences (Hayes, 2013). We estimated the conditional effect of family relationships on internalizing behavior when a moderator is equal to the mean ("moderate"), a standard deviation below the mean ("relatively low"), and a standard deviation above the mean ("relatively high") (Hayes, 2013). Estimates are based on setting covariates to their sample means.

As can be seen on the figure 16B, among families who perceive their quality of life as moderate or low, family relationships contribute to the significant decrease of internalizing behavior when parenting involvement is moderate or high. However, among the families who perceive their quality of life as high, family relationships don't contribute significantly to the decrease of child's internalizing behavior whether parenting involvement is high, moderate or low.

3.3 Attachment problems

3.3.1 Hypothesis A3:

(a) Deinstitutionalized children have less attachment problems than children who remained in institution and the same level as never-institutionalized children. (b) After deinstitutionalization, attachment problems decrease among deinstitutionalized children while it remains the same for never-institutionalized children and for children who remained in institution. (c) Non-orphans deinstitutionalized children have better outcome than deinstitutionalized orphans.

To test the above hypothesis, data were analyzed using a mixed-design ANOVA with Time (before, after deinstitutionalization) as a within-subjects factor and institutionalization status (never-institutionalized, deinstitutionalized, in institution) and biological parents living status (non-orphan, orphan) as between-subjects factors. Attachment-related avoidance problems were dependent variable. Clinical scores are presented in Table 6.

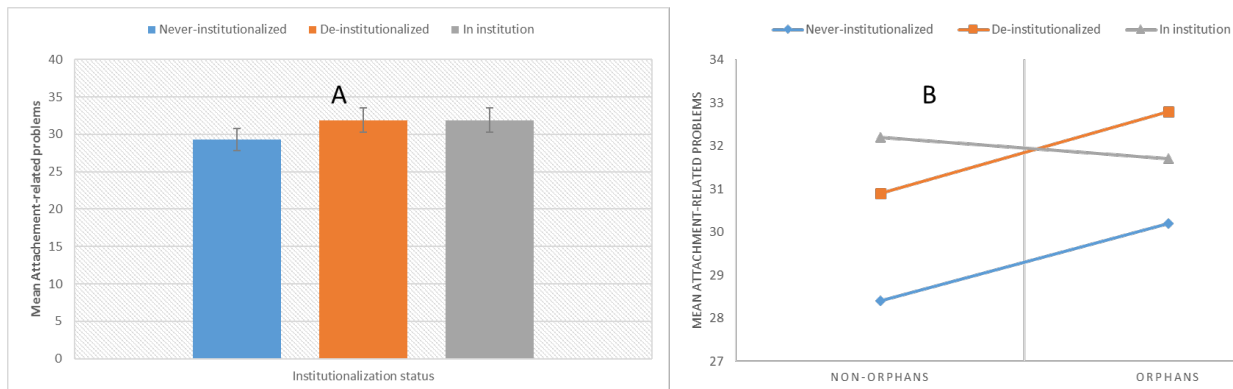


Figure 17. Main effect (A) of institutionalization status and interaction effect (B) of institutionalization and biological living status on attachment-related problems.

As can be seen on Figure 17A, results showed significant predicted main effect of institutionalization status on children's attachment-related avoidance problems, $F(2, 147) = 4.79$, $p = .010$, $r = .17$. Games-Howell Post Hoc Test indicated that never-institutionalized children had significantly less attachment-related avoidance problems than deinstitutionalized children, $p = .047$, and children who remained in institution, $p = .028$, but attachment-related avoidance problems did not differ significantly between de-institutionalized children and children who remained in institution, $p = .902$.

The main effect of biological living status was not significant, $F(1, 147) = 1.41, p = .236, r = .09$ and so was the predicted interaction effect of institutionalization and biological living status on children's attachment-related avoidance problems, $F(2, 147) = .791, p = .455, r = .05$. (see Figure 17B)

The main effect of time on attachment-related avoidance problems was significant, $F(1, 147) = 4.80, p = .030, r = .18$, and so was interaction between time and institutionalization status, $F(1, 147) = 3.13, p = .046, r = .14$. Attachment problems decreased overtime from $M = 31.9, SE = .523$ to $M = 30.1, SE = .665$ but this decrease depends on institutionalization status.

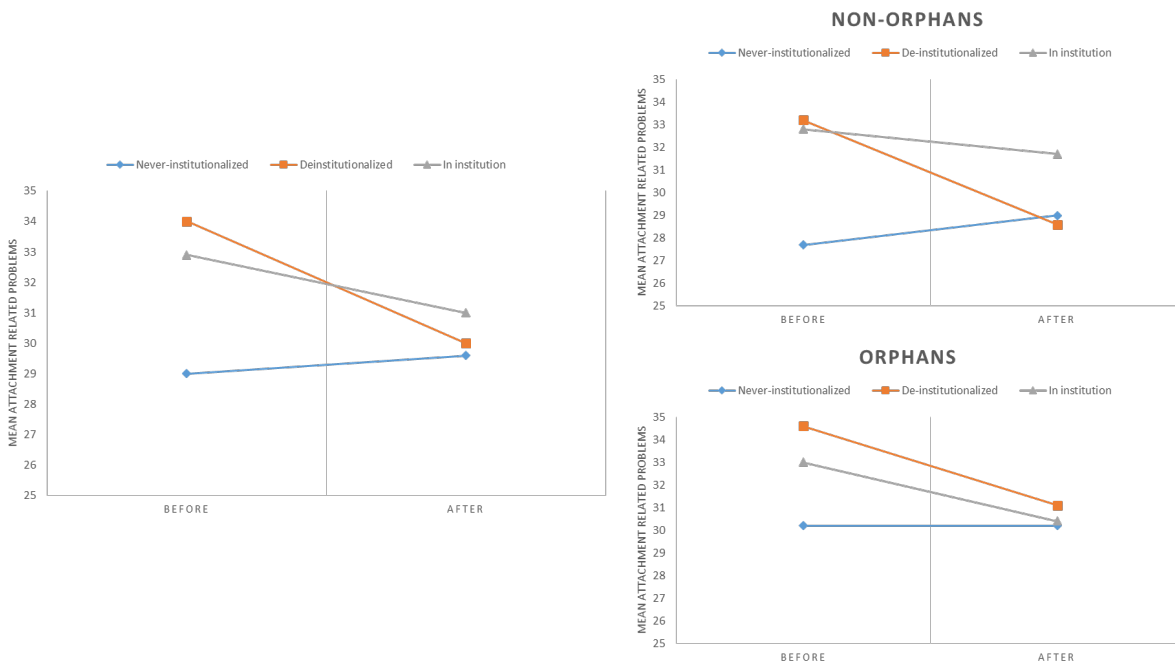


Figure 18. Interaction effect of time and institutionalization status (left) and biological living status (right) on attachment-related avoidance problems.

As can be seen on Figure 18, never-institutionalized children and children who remained in institution had the same level of attachment behavior problems before and after deinstitutionalization, respectively $p = .563$ and $p = .200$. Deinstitutionalized children had significantly less attachment problems after deinstitutionalization than before, $p = .011$. Before, never-institutionalized children had less attachment problems than children who remained in institution, $p = .001$ and de-institutionalized children, $p < .001$, whereas there was no significant difference in attachment problems between deinstitutionalized and children who remained in

institution, $p = .466$. After deinstitutionalization, there was no significant difference between the three groups based on institutionalization status, $F(2, 147) = .461, p = .632$.

Interaction effect of time and biological living status, $F(1, 147) = .132, p = .717, r = .02$; and the three way interaction effect of time, institutionalization status and biological parents living status on attachment related problems, $F(2, 147) = .232, p = .794, r = .07$ were not significant (see Figure 18).

3.3.2 Hypothesis B3:

3.3.2.1 Hypothesis B3a:

For deinstitutionalized children and never institutionalized children, (a) parenting involvement, family relations, parental quality of life, family economy, child's self-efficacy, time spent in family and institutionalization status predict the level of children's attachment problems and specifically (b) the effect of parenting involvement on attachment problems depends on family economic category while controlling for time spent in family.

To test part (a) of the above hypothesis, the predictive role of Family relations, Parenting practices, Economic category, Quality of life, Time spent in family and child's Self-efficacy in child's attachment problems, a standard multiple regression was conducted with attachment-related avoidance score as the dependent variable. Inter-correlations between the multiple regression variables are shown in Table. As can be seen, attachment was negatively significantly correlated with parenting and self-efficacy. Each independent variable was significantly correlated by at least one other independent variable. For example, economic category was correlated with parenting, quality of life and time spent in family.

Table 11 Inter-correlations between the multiple regression variables and attachment-related avoidance

	2	3	4	5	6	7	8
1 Attachment-related avoidance	.069	-.484**	.010	.094	-.444**	-.089	.060
2 Family relationships	--	.096	.091	.216*	-.046	.188*	-.160
3 Parenting		--	-.174*	.113	.229*	-.024	.044
4 Economic category			--	.331**	.095	.305**	-.318**
5 Quality of life				--	-.099	.179*	-.252*
6 Self-efficacy					--	-.071	.091
7 Time in Family						--	-.969**
8 Inst. status							--

Note. Correlations greater than $\pm .17$ are significant at $p < .05$ (2-tailed) and correlations $\pm .26$ are significant at $p < .01$ (2-tailed).

The prediction model was statistically significant, $F(7, 89) = 8.286, p < .001$, and accounted for approximately 40% of the variance of attachment-related avoidance problems ($R^2 = .395$, Adjusted $R^2 = .347$). The raw regression coefficients of the predictors together with their structure coefficients, are shown in Table. Parenting involvement and child's self-efficacy were positive significant predictors of child's attachment. Less attachment-related avoidance problems were primarily predicted by higher level of parenting involvement, and to a lesser extent by higher levels of self-efficacy. Economic category, family relations, quality of life and time spent in family were not significant predictors of children's attachment-related avoidance problems. Examination of the structure coefficients suggests that parenting involvement and child's self-efficacy were a strong indicators of the underlying (latent) variable described by the model.

Table 12 Bootstrapped regression coefficients for attachment-related avoidance

	<i>b</i>	<i>Biais</i>	SE-b	<i>p</i>	<i>sr</i>
Constant	44.1	.538	6.90	.001	
Family relationships	.271	-.017	.261	.299	.109
Parenting	-.350	.004	.079	.001	-.770
Economic category	-.375	-.037	.998	.730	.016
Quality of life	.058	.000	.047	.244	.150
Self-efficacy	-.189	-.004	.050	.001	-.706
Time in family	-.019	.000	.033	.065	-.141
Instit. status	-.725	-.113	5.303	.887	.095

Note. The dependent variable was self-esteem. $R^2 = .395$, Adjusted $R^2 = .347$;

sr is the structure Coefficients: correlations of the predictors in the model with the overall predictor variate (Pearson correlation between the predictor and the criterion variable divided by the multiple correlation); N = 99

3.3.2.2 Hypothesis B3b:

For deinstitutionalized children and never institutionalized children, (a) parenting involvement, family relations, parental quality of life, family economy, child's self-efficacy, time spent in family and institutionalization status predict the level of children's attachment problems and specifically (b) the effect of parenting involvement on attachment problems depends on family economic category while controlling for time spent in family.

To test part (b) of the above hypothesis, economic category was examined as a moderator of the relation between Parenting involvement and attachment avoidance problems (see Figure 19A). Parenting, economic category as well as the interaction term between parenting and economic category were entered in the regression analysis. Interaction term was obtained by product of parenting and economic category. We also included, as a covariate to control, the time a child spent in family. To avoid potentially problematic high multicollinearity with the interaction term, the variables were centered to their mean (Aiken & West, 1991).

The total model accounted for 29.2% of variance in child's attachment avoidance problems, $F(4, 105) = 10.833, p < .001$. The coefficient for parenting involvement was negatively significant, $b = -.393, t(105) = -5.741, p < .001$. The coefficient for economic category was not significant, $b = -.486, t(105) = -.705, p = .482$ and so was coefficient for the covariates, time spent in family, $c1 = -.009, t(105) = -1.140, p = .257$.

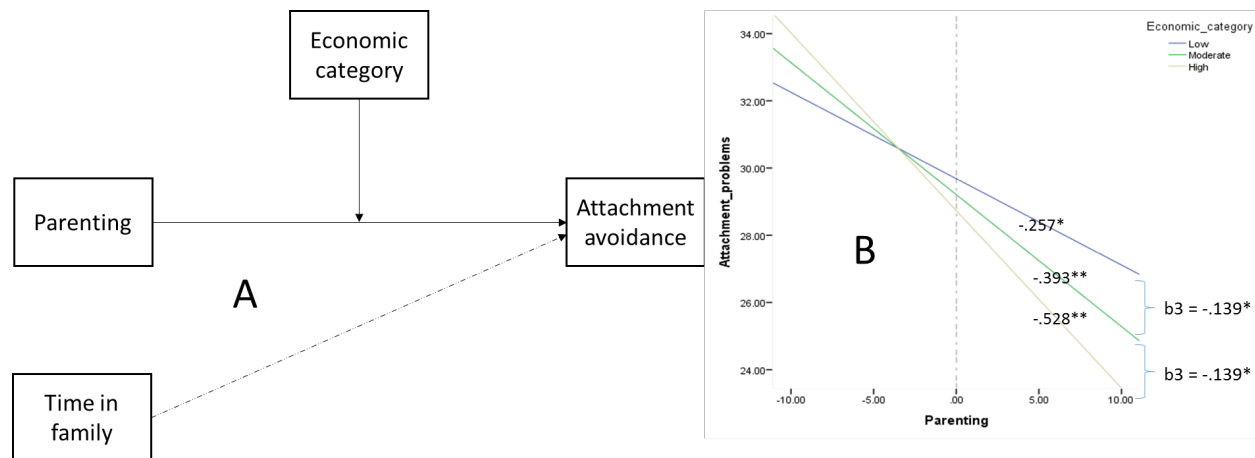


Figure 19. Conceptual (A) visualization of moderation of the effect of parenting on child's attachment problems by economic category controlling for time spent in family and Conditional effect (B) of parenting on attachment at values of economic category.

The interaction term explained a significant increase in variance in child's attachment problems, $R^2 \text{ change} = .027, F(1, 105) = 3.950, p = .049$. Coefficient for the interaction between family relationships and parenting involvement was significant $b3 = -.139, t(88) = -1.987, p = .049$. Thus, Economic category was a significant moderator of the relationship between parenting involvement and child's attachment problems.

Interaction was probed using simple slopes analysis approach (Pick-a-point). We estimated the conditional effect of parenting on attachment when economic category is equal to the mean ("moderate"), a standard deviation below the mean ("relatively low"), and a standard deviation above the mean ("relatively high") (Hayes, 2013). Estimates are based on setting covariate, time spent in family, to its sample mean.

The unstandardized simple slope for low economic category was $-.257, t(105) = -2.513, p = .013$, the unstandardized simple slope for moderate economic category was $-.393, t(105) = -5.741, p < .001$.

.001 and the unstandardized simple slope for high economic category was $-.528$, $t(105) = -5.828$, $p < .001$. As can be seen on Figure 19B, the effect of parenting involvement on attachment problems is consistently negative among all economic categories. The higher the economic category, the higher the decrease of attachment problems due to parenting involvement.

3.4 Self-esteem

3.4.1 Hypothesis A4:

(a) Deinstitutionalized children have higher self-esteem than children who remained in institution and the same level as never-institutionalized children. (b) After deinstitutionalization, self-esteem increase among deinstitutionalized children while it remains the same for never-institutionalized children and for children who remained in institution. (c) Non-orphans deinstitutionalized children have better outcome than deinstitutionalized orphans.

To test the above hypothesis, data were analyzed using a mixed-design ANOVA with Time (before, after deinstitutionalization) as a within-subjects factor and institutionalization status (never-institutionalized, deinstitutionalized, in institution) and biological parents living status (non-orphan, orphan) as between-subjects factors. Self-esteem was dependent variable. . Clinical scores are presented in Table 6.

The hypothesized main effect of institutionalization status on children's self-esteem, $F(2, 147) = .714$, $p = .492$, $r = .06$; and so was the unpredicted main effect of biological living status, $F(1, 147) = .152$, $p = .698$, $r = .03$. As can be seen on Figure 20A, if we ignore other variables, self-esteem didn't differ significantly among the three groups.

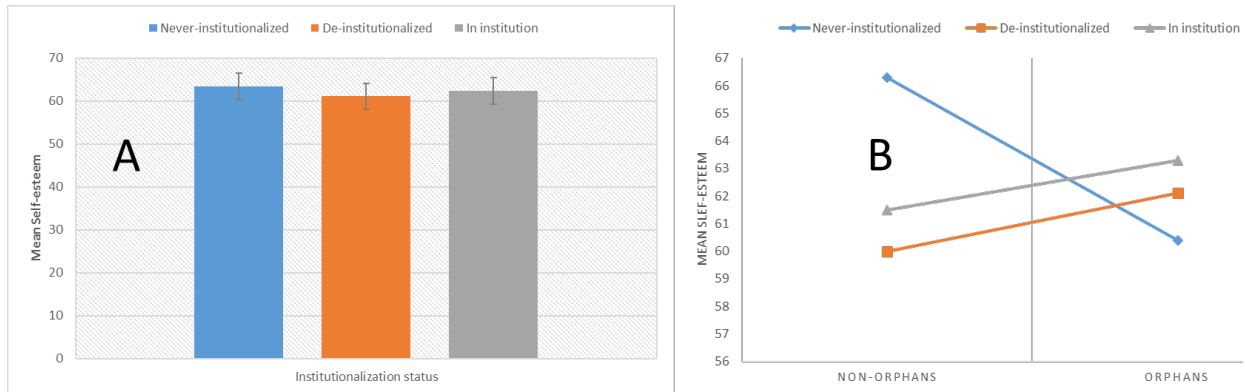


Figure 20. Main effect (A) of institutionalization status and interaction effect (B) of institutionalization and biological living status on self-esteem.

The predicted interaction effect of institutionalization and biological living status on children's self-esteem was significant, $F(2, 147) = 3.324$, $p = .039$, $r = .15$. As can be seen on Figure 20B, among never-institutionalized children, non-orphans had significantly higher self-esteem than orphans, $p = .008$. However, among deinstitutionalized and children who remained in institution, there was no significant difference of self-esteem between non-orphans and orphans, with respectively, $p = .485$ and $p < .528$ (see Figure 20B).

For non-orphans, never-institutionalized children had higher self-esteem than de-institutionalized, $p = .026$ and children who remained in institution, $p = .031$, while there was no significant difference between de-institutionalized children and children who remained in institution, $p = .626$. The contrast of orphans was not significant, $F(2, 147) = .543$, $p = .582$. Among orphans, there was no significant difference in self-esteem between never-institutionalized and de-institutionalized children, $p = .500$, and children who remained in institution, $p = .315$; as well, de-institutionalized children had the same level of self-esteem as children who remained in institution, $p = .697$.

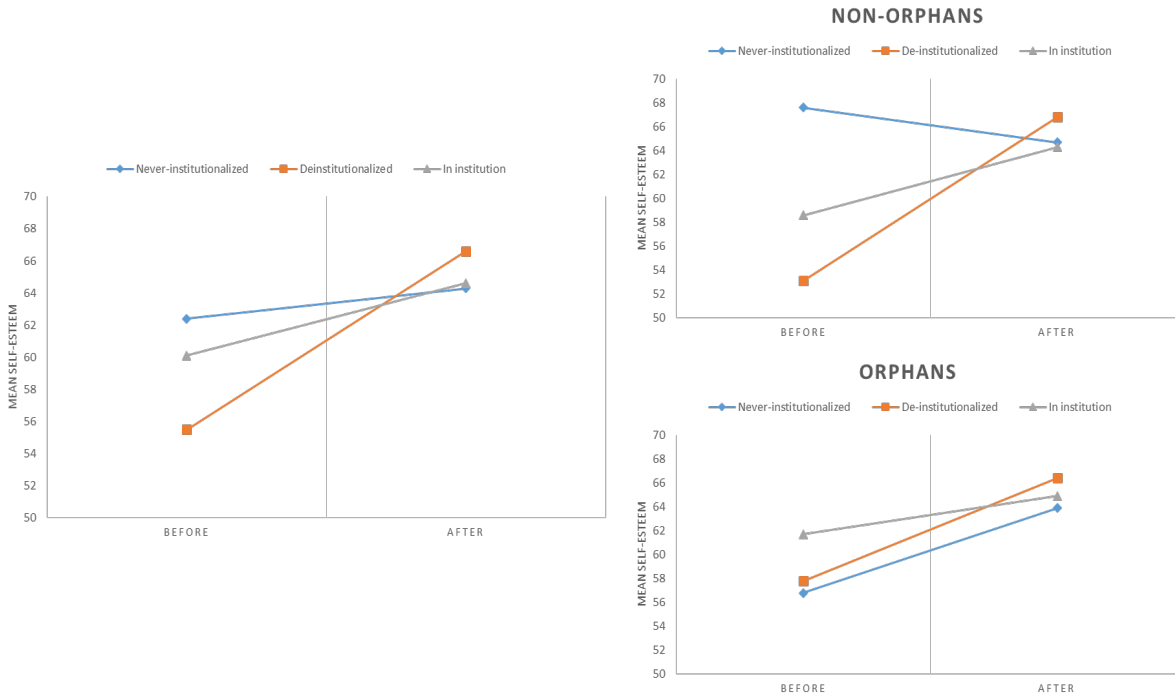


Figure 21. Interaction effect of time and institutionalization status (left) and biological living status (right) on self-esteem.

Though irrelevant to our hypothesis, the main effect of time was significant, $F(1, 147) = 12.4, p = .001, r = .27$. Considering all children self-esteem level increased overtime, from $M = 59.3, SE = 1.20$ before de-institutionalization to $M = 56.2, SE = 1.12$ after. All interactions involving time were not significant, $F \leq 2.67, p \geq .073, r \leq .13$. The predicted interaction effect of time and institutionalization status, $F(2, 147) = 2.67, p = .073, r = .13$; unpredicted interaction between time and biological living status, $F(1, 147) = .076, p = .783, r = .07$; and the three way interaction between time, institutionalization status and biological parents living status, $F(2, 147) = 2.47, p = .088, r = .12$ were not significant (see Figure 21).

3.4.2 Hypothesis B4:

3.4.2.1 Hypothesis B4a:

For deinstitutionalized children and never institutionalized children, (a) Parenting involvement, family relations, parental quality of life, family economy, child's self-efficacy, time spent in family

and institutionalization status predict the level of children's self-esteem and specifically (b) parenting involvement affects children's self-esteem through its effect on children's self-efficacy.

To test part (a) of the above hypothesis, the predictive role of Family relations, Parenting practices, Economic category, Quality of life, Time spent in family and child's Self-efficacy in child's self-esteem, a standard multiple regression was conducted with self-esteem as the dependent variable. Inter-correlations between the multiple regression variables are shown in Table 13. As can be seen, self-esteem was significantly correlated with half of independent variables included in the model. Each independent variable was significantly correlated by at least one other independent variable.

Table 13 Inter-correlations between the multiple regression variables and global self-esteem scores

	2	3	4	5	6	7	8
1 Self-esteem	.070	.201*	.105	-.228*	.477**	-.110	.132
2 Family relationships	--	.077	.064	.222*	-.091	.163	-.143
3 Parenting		--	-.230*	.078	.116	-.026	.051
4 Economic category			--	.331**	.015	.290**	-.302**
5 Quality of life				--	-.155	.191*	-.255*
6 Self-efficacy					--	-.096	.117
7 Time in Family						--	-.972**
8 Inst. status							--

Note: correlations greater than $\pm .17$ are significant at $p < .05$ (2-tailed) and correlations $\pm .26$ are significant at $p < .01$ (2-tailed); $N = 97$

The prediction model was statistically significant, $F(7, 85) = 6.700$, $p < .001$, and accounted for approximately 36% of the variance of self-esteem ($R^2 = .356$, Adjusted $R^2 = .302$). The raw regression coefficients of the predictors together with their structure coefficients, are shown in Table 14. All variables included in the model, with the exception of time spent in family, were significant predictors of self-esteem. Higher Self-esteem was primarily predicted by higher level of self-efficacy, and to a lesser extent by higher levels of parenting involvement, family economic category. Unexpectedly, higher caregiver's perceived quality of life predicted rather lower level of self-esteem. Though, family relationships didn't significantly correlate with self-esteem, it was a significant predictor in the model. Examination of the structure coefficients suggests that, with

the possible exception of self-efficacy whose structure coefficient is high, the other significant predictors were not a strong indicators of the underlying (latent) variable described by the model.

Table 14 Standard regression coefficients for self-esteem

	<i>b</i>	<i>Biais</i>	SE-b	<i>p</i>	sr
Constant	26.7	-.754	12.6	.033	
Family relationships	.736	.026	.393	.061	.117
Parenting	.329	-.003	.130	.016	.336
Economic category	4.52	-.066	1.65	.013	.176
Quality of life	-.236	.002	.078	.005	-.382
Self-efficacy	.441	.005	.097	.001	.800
Time in family	-.041	.001	.064	.514	-.184
Inst. status	-3.70	.171	10.2	.718	.221

Note. The dependent variable was self-esteem. $R^2 = .356$, Adjusted $R^2 = .302$;

sr is the structure Coefficients: correlations of the predictors in the model with the overall predictor variate (Pearson correlation between the predictor and the criterion variable divided by the multiple correlation); N = 97

3.4.2.2 Hypothesis B4b:

For deinstitutionalized children and never institutionalized children, (a) Parenting involvement, family relations, parental quality of life, family economy, child's self-efficacy, time spent in family and institutionalization status predict the level of children's self-esteem and specifically (b) parenting involvement affects children's self-esteem through its effect on children's self-efficacy.

To test part (b) of the above hypothesis, regression analysis was used to investigate whether self-efficacy mediates the effect of parenting involvement on children's self-esteem (see Figure 22).

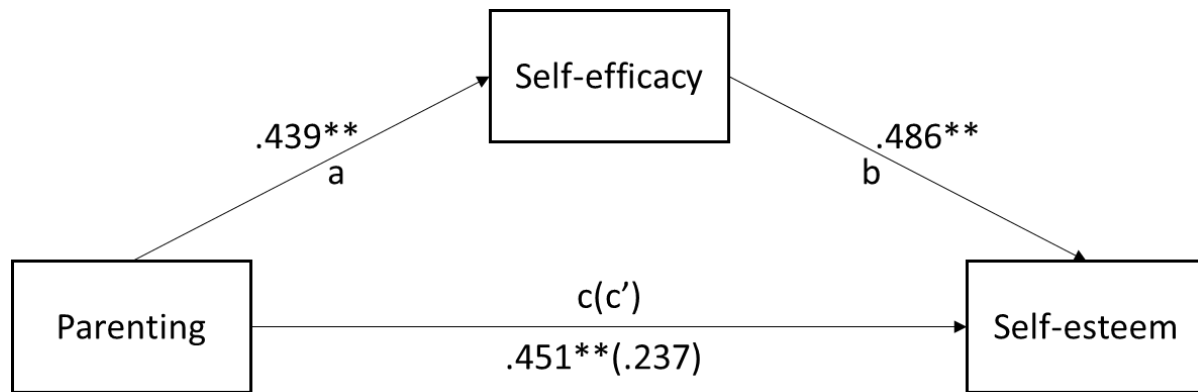


Figure 22. Simple mediation model for the relationship between parenting and children's self-esteem as mediated by children's self-efficacy.

As can be seen in Figure 22, the regression of parenting on self-esteem, ignoring self-efficacy as mediator, was positively significant ($c = .451$, $t(108) = 3.294$, $p = .001$) and accounted for significant variance in children's self-esteem, $R^2 = .091$, $F(1,109) = 10.853$, $p = .001$. Parenting was a significant positive predictor of self-efficacy ($a = .439$, $t(108) = 3.295$, $p = .001$) and self-efficacy was a significant positive predictor of children's self-esteem ($b = .486$, $t(107) = 5.586$, $p < .001$). Parenting was no longer a significant predictor of children's self-esteem after controlling for children's self-efficacy, $c' = .237$, $t(107) = 1.869$, $p = .064$. Parenting accounted for significant variance in children's self-efficacy, $R^2 = .091$, $F(1,109) = 10.853$, $p = .001$. Parenting and self-efficacy accounted for significant variance in the children's self-esteem, $R^2 = .294$, $F(2,108) = 22.530$, $p < .001$.

A bias-corrected bootstrap confidence interval for the indirect effect ($ab = .213$) based on 1000 bootstrap samples was entirely above zero (.060 to .398) meaning that there was evidence of an indirect effect of parenting on self-esteem through self-efficacy. Self-efficacy fully mediated the effect of parenting on child's self-esteem.

IV. DISCUSSION

The purpose of this section is to explain what presented results mean and what contribution this thesis makes to the studied field. First the key findings are presented followed by interpretation of results study by study. A particular attention is paid to the interpretation of unexpected results where a methodological, theoretical and contextual meaning is tented. Next limitation and tentative mitigation measures are discussed followed by suggestions for future orientations. The last section of discussion part covers a conclusion and clinical and political implications of the present thesis.

1. Key findings

The aim of the present study was to investigate the effects of institutionalization-deinstitutionalization process on children's psychological adjustment. Following theoretical operationalization, psychological adjustment was defined in terms of outcome variables including externalizing and internalizing behavior, attachment and self-esteem. The present study analyzed also the influence of parental living status. Compared to children who have never been institutionalized, it was expected that institutionalized children will have the worse psychological adjustment, orphans having the worst results. Correspondingly, the improvement of psychological adjustment was expected to institutionalized children once they are de-institutionalized, meaning placed into family. Conditions of this improvement were profoundly analyzed considering children and family characteristics including family relationships, parenting involvement, socio-economic status, perceived quality of life, child's self-efficacy as well as time spent in family.

Taken together, our results show that institutionalization has a negative impact on children's psychological adjustment. First children considered the process of institutionalization as a process of rendering them orphans (orphanization). The most remarkable and unexpected finding is that Rwandan children living in institution have more impairment in psychopathological symptoms when they have living parents especially externalizing behaviors. Institutionalized children with parents present more behavioral problems and failed to have higher self-esteem as expected compared to institutionalized children without parents. One possible explanation could be that institutionalized children with parents feel rejected or abandoned by their parents while institutionalized children without parents do not have any direct person to blame for their

“misfortune”. In spite of that, our results are highly relevant as in Rwanda more than 4 out of 5 children living in institutions are not orphans (National Commission for Children, 2014). This result extends to other collectivist societies including African, Arabic and South American with a strong tradition to rather absorb the orphaned children (Foster, 2000)

Another remarkable finding is that the present thesis failed to prove the improvement of psychological adjustment due to de-institutionalization in all domains as expected namely, externalizing behavior, internalizing behavior, attachment-related problems and self-esteem. At the contrary of our expectations, the improvement among de-institutionalized children was observed only in the significant decrease of attachment problems which was rather a harder result to expect considering the relatively short time deinstitutionalized children had spent in family. For externalizing behavior, deinstitutionalization continued to have more externalizing behavior in comparison to other groups even after de-institutionalization. For self-esteem, no significant change was reported among deinstitutionalized children. Concerning internalizing behavior, it was even worse after de-institutionalization. Deinstitutionalized children had significantly more internalizing problems after deinstitutionalization than before. These results are in line with previous studies which demonstrated the long-lasting negative effects of institutionalization. Unexpected results are discussed in details in the following lines.

Regarding conditions for better children’s psychological adjustment in family, family relationships and parenting involvement were reported to be the strongest predictors of children psychological adjustment in most of measured outcome variables. Unexpectedly, socioeconomic status, which was considered by several previous studies as a robust predictor of child’s adjustment (Murali & Oyebode, 2004; Rothwell & Han, 2009; Silbereisen & Walper, 1988; Wan, 2008) didn’t gain as much importance in the present study. At the contrary, adult’s perceived quality of life was a significant mediated predictor in children’s externalizing behavior and has a moderating effect in internalizing behavior.

2. Interpretation of results

In this section results are discussed study by study and by outcome variable. Each time, before interpreting the results, pursued hypothesis or research question are recalled to the reader.

2.1 Study 1: Exploration of institutionalized children's experience

The aim of this study was to explore the perceptions of institutionalized children about their institutionalization experience. Four constructs emerged from their expressions including absence of parents, sensing orphanage, modelling the outside world and self-description. These constructs are discussed in light of African cultural context in the following lines.

1. Absence of parents

“Absence of parents” is the starting point of the orphanization process and was the first construct identified in children's text segments. Absence of parents means letting the child slip through social safety net that was supposed to protect and care. The concept of social safety net has been defined by Foster (2000). As said previously, it includes traditional safety net like aunts, uncles, grandparents and alternative safety net like relatives, neighbors and friends of family as well as the entire community surrounding the child. According to participants, any of the above social safety net member is a « parent ». For them, any adult is supposed to perform parental responsibility. Children questioned then how the child may slip through this social security net and ends up in orphanage, street, domestic work or be a child headed household.

The responses to this questioning was diverse resulting at one hand on presentification of parents meaning making them present in the mind even if they are physically absent and, on the other hand, absentification of parents meaning making them absent in children's mind even in the case they physically exist.

One theoretical explanation of this phenomenon may be from Cernkovich & Giordano (1987) who clarified "psychological presence" of parents in the child's mind in terms of attachment. They inferred that the more strongly a child is attached to his parents, the more the child is less likely to blame his parents of their absence, not because his parents actually restrict him/her but because he perceives them as aware of his location and doings. When the child is accustomed to sharing his mental life with his parents, he is accustomed to seeking or getting their opinion about his activities, and he is more likely to perceive them as part of his social and psychological field (Cernkovich & Giordano, 1987).

Furthermore, an explanation of absentification of parents were given by children themselves using the metaphorical meaning of the “heart”. According to Nothomb (1965), the “heart” is in the forefront of criteria used to evaluate the personal humanity in many traditional societies including Rwanda. The expression *Kanaka agira umutima* (someone has a heart) is enough to qualify the ideal person (Balibutsa, 1985). Being without “heart” means the death.

By absentifying their parents, children classify themselves in the catchall category called “abandoned children”, in the sense of Caroli (1999) who used this expression to refer to “orphans with living parents”, “social orphans” or “neglected children through the family”. Also, Panter-Brick & Smith (2000) grouped together in one catch-all category called ‘abandoned children’ orphans, children in residential child care institutions, refugees, victims of war, child prostitutes, children relinquished for adoption, and children left behind by their parents.

2. Sensing orphanage

Once separated from parents, slip through social security net and end-up in orphanage, the child starts to find the meaning and sense of the new life in orphanage. Two contradictory senses emerged from this sensing process. On the one hand, a negative portrait was drawn taking orphanage as orphanizing environment. In this regard, they felt for example unfairly treated and at some extent exploited. In this case, orphanage system become a corporate body where children are assets for the system self-sustainability. In African cultures child used to be rather a resource. It used to be, the ambition of a man to gather around him a growing lineage of descendants and dependents who would act as a corporate body for economic purposes and also a united body in times of crisis or tension within the community (Mpofu, 1994).

On the other hand, positive portrait was drawn considering orphanage as savior. Thus, participants described orphanage as survival island. The survival island recall a tradition dating back in 19 centuries but still in the collective conscience in Rwanda (Bigirumwami, 1984). According to that tradition, girls who were pregnant out of marriage wedlock were sent to that island to exclude children born out of marriage wedlock known as “*ikinyendaro*”. Traditionally in Rwanda, it was believed that such child brings bad luck to his mother’s family members and the entire society. Whoever, among mother’s family member, sees that child was supposed to die directly! In case

that “kinyendaro” was not killed, purification rituals were conducted in the presence of all nuclear and extended family members to enable them to see that child without any consequent adversity.

Alternatively, when a girl or women got pregnant before or out of marriage wedlock, she was automatically excommunicated from Rwandan society following a sentence by the King and thrown in some dangerous Lake, river, desert, uninhabited island or dense forest to be eaten alive by ferocious animals, be killed by dangerous waterfall or by hunger (Bigirumwami, 1984). In some tolerant subculture, she would be sent to a neighboring country to save herself by getting married to a foreign husband or killing the born child and then come back without that child.

In view of the practical impossibility of accomplishment of above described rituals to stand surety and save both the child and the single-mother, one would wonder if orphanages are not playing such role of the above mentioned island. Anyway, in the case of the orphanage, parents are saved from social “punishment” to the detriment of the child. The latter becomes a scapegoat who is paying back “debts” incurred by his/her parents, and metaphorically, considered as “unwanted”, marginalized and then excluded.

3. Modeling the "outside world"

Once a child is placed into orphanage, he/she does not only find the meaning for orphanage but also the outside world. As described in the results, in this construct, participants demonstrated a clear demarcation line between the inside and outside orphanage world. This dichotomization is largely influenced by the availability of information about outside world.

The lack of trustful information about living status of their parents for example opens the door to imagining their portrait. On one hand a negative portrait is drawn. A parent who abandon his/her child, a parent who doesn't have anything to give to a child, a parent who doesn't have good relationship with family and community members. On the other hand, a positive ideal portrait of a missed parent who would have been caring better if he/she were present. With this experience, the child is living in perpetual turmoil of “if I had loving parents I would have been...”

There is an interconnection between the sense given to orphanage and the sense given to outside. A child who does not have from example trustful information about the real living situation of

their parents may more likely question any intention or action wondering whether it's not to profit his/her vulnerable profile. He/she is then in constant comparison of every single situation in orphanage with the ideal situation where outside world including his/her parents is better; comparisons that result into a non-satisfaction of the current situation as the ideal situation doesn't really exist in this case.

According to Martin (1970), the child who experienced the social exclusion and rejection will then fail to learn the appropriate responses for social interactions and will, remain socially immature and consequently, will consider social environment as harmful and because of the lack of trust, the relationships with others are more likely to be problematic.

4. Self-description

Self-description was the fourth construct resulting from the entire process. Indeed, following the absence of parents and placement into orphanage, the child is compelled to redefine himself or position himself in line with his/her life story, general humanity norms and roles as a child.

Indeed, life stories help to define and set oneself from general context (Lani-Bayle, 1999). Without a clear personal life story, it's difficult to conceive the "I am", "I have" and "I can", the resilience indicators based on memory work (Denis, 2005) and it poses identity difficulties (Mueller & Sherr, 2009). Considering the aspect of names for example on which some participants expressed confusion. Names are part of identity to which none is supposed to be wrong. Being confused about your own name would mean being confused about self, the origin and, at another extend, not having someone who gives names. In Rwanda, a part of value is conveyed from generation to generation through a name. A proverb says, literally, "the name is the person" (*izina ni ryo muntu*). Names are given by the community members eight days after the birth, meaning you rather mostly belong to the community and before community recognizance you are not yet a known human. Names are seen as having the dual character of denoting the individuality of the person, and also marking social connections. Personal names are a core marker of the individual and quite literally 'personify' the individual (Finch, 2008).

About the general humanity norms, coded segments revealed a confusion about what Kagame A. (as cited in Ukwamedua, 2011) called "Ntu", the underlying category of being. Participants

included themselves in “Kintu”, those forces that are sterile and need the action and activity of other forces to enliven themselves instead of “Muntu”, human being and other beings with relations with the man both the living and the dead, and the ancestors. Cognitive theories, applied in the areas of abuse and post-traumatic stress, suggest that the experience of trauma can shatter the core assumptions that people hold about themselves and the world (Janoff-Bulman, 1985). By defining him/her as an object, a child projects himself in the unconquerable world, which is a coping strategy. Such a process may be considered a necessary task in order to assimilate the experience into an individual’s life without violating these core assumptions (Kaiser & Kennedy, 2011).

Finally, role reversal opens the doors to “parentification” (Earley & Cushway, 2002) of those children. By wishing to achieve this mission, the child tends to eliminate the adulthood world from his childhood to play both roles of child and adult. The parenthood becomes an assumed responsibility in the absence of parents, an absence that is considered as a symbolic death lived frequently as real death of parents (biological and/or other “adults’ protectors”). For Hooper (2007), breaking taboos that maintain the human differentiation truth distorts the place in generations and destroy the identity points of reference, a very common situation to the victims of a traumatic event.

2.2 Study 2: Institutionalization and parents living status

The present study investigated whether institutionalization negatively impacted the psychological adjustment of children, that is defined by the presence of externalizing behavior and low self-esteem. Additionally, we aimed to assess whether having living or deceased biological parents aggravate the effect of institutionalization on adjustment. As expected, psychological adjustment differed significantly between institutionalized children and non-institutionalized children, with Institutionalized children having more externalizing behavior and less self-esteem compared to non-institutionalized children. The most remarkable and unexpected result is however, that institutionalized children with parents had more externalizing behaviors than institutionalized children with deceased parents, but no difference in self-esteem.

The impairment in psychological adjustment in institutionalized children is in line with several previous studies that report increased deviant behaviors and decreased self-esteem in institutionalized children in Western countries (Cheung, Goodman, Leckie, & Jenkins, 2011; Nilofer Farooqi & Intezar, 2009; Pinheiro Mota & Matos, 2012). This suggests that the impact of institutionalization is similar in Rwanda as in developed countries. Our results also indicate that institutionalized children had significantly more externalizing problems than non-institutionalized children, this being true for both components of externalization: aggressive behavior and rule-breaking behavior.

However, at the contrary of our hypothesis that institutionalized children would have more externalizing problems if their biological parents were dead, our data showed that in institutionalized children there were significantly more externalizing problem in children with living biological parents. Furthermore, externalizing problems are more prominent in institutionalized versus non-institutionalized children only when they have living parents, while there is no difference for children without living parents. Looking at each component of externalizing behavior separately showed that both -aggressive behavior and rule-breaking behavior - were significantly more expressed in institutionalized versus non-institutionalized children, however the interaction with having or not living parents hold true only for aggressive behavior. The findings of higher externalizing psychopathological problems institutionalized children corroborate to some extent previous studies showing that when compared to children living in families, institutionalized children are more likely to show significantly higher rates of externalizing behavior (Cheung et al., 2011; Keil & Price, 2006)

Nonetheless, the findings that institutionalized children with living biological parents are the ones to be vulnerable for externalizing behavior problems is new and unexpected. They are partly in accordance with Manso, García-Baamonde, Alonso, & Barona (2011) who concluded that rejection and lack of necessary affection and support from parents often lead to the appearance of behavioral problems in children. They contradict however the stereotype that orphans are badly behaved and more likely to engage in defiant or socially unacceptable behaviors; yet, this is a belief that limits the willingness of the community to support orphans (Thurman et al., 2008b). In addition, this result is particularly concerning since children who remained in institution with higher rates of externalizing behavior are also more likely to experience placement disruptions,

which further increases their risk of externalizing behavior (Newton, Litrownik, & Landsverk, 2000) . However, our results indicate that in families, both children with and without parents do not differ significantly in externalizing behavior problems.

As for self-esteem, we hypothesized that institutionalized children would have lower self-esteem compared to non-institutionalized children, and that it would be even lower for institutionalized children without parents. However, our results showed that self-esteem scores are only lower for institutionalized versus non-institutionalized children when they have living parents, but it makes no difference to children with deceased parents. On the other hand; results in our study revealed that in families, children with parents had higher self-esteem than children without parents. These findings suggest that the orphan status is a risk for low self-esteem only for children who came from families with previously living parents. The decreased self-esteem scores observed in institutionalized children is in line with a previous study (Youngleson, 1973) reporting that the maternal and subsequent social deprivation of institutionalization increases the child's feeling of insecurity and worthlessness, resulting specifically in a decrease of self-esteem. Nilofer Farooqi & Intezar (2009) demonstrated that orphan children showed lower self-esteem as compared to the children living with their parents, corroborating therefore our findings on the role of being an orphan on self-esteem. Moreover, it was previously shown that the orphan status alone predicted symptoms of depression in children of Tanzania, Rwanda, Uganda and Zimbabwe (Boris et al., 2008). Nevertheless, this is an alerting result as self-esteem is considered to be a basic need for personal fulfillment in Rwandan culture, and is an undeniable criterion to measure adjustment as stated by (D. Nothomb & Kagame, 1965).

2.3 Study 3: Deinstitutionalization effect and prediction of outcomes in family

The aim of study 3 was to investigate children's psychological adjustment in Rwanda. Psychological adjustment was defined in terms of externalizing behavior, internalizing behavior, attachment problems and self-esteem. Three groups including never-institutionalized children living in family, de-institutionalized children and children who remained in institution were followed up in two times named before and after deinstitutionalization. Outcomes of the three groups were compared. The influence of children's biological living status was further explored. An improvement of psychological adjustment was expected for de-institutionalized children once

they are de-institutionalized, meaning placed into families from institution. This improvement was expected to be even better for orphans than non-orphans.

1. Externalizing behavior

First, Deinstitutionalized children and never-institutionalized children were assumed to have less externalizing behavior problems than children who remained in institution. Using mixed-group analysis of variance we found significant difference between the three groups. Unexpectedly, results showed that externalizing behavior problems were higher for deinstitutionalized children than never-institutionalized and children who remained in institution but externalizing behavior problems did not differ significantly between never-institutionalized children and children who remained in institution. However, as the interaction effect of institutionalization status and biological living status was significant on externalizing behavior, this group difference depends on whether a child is orphan or non-orphan. It was found that these three groups are significantly different only among non-orphans and not significantly different among orphans.

One of explanation is to be found in the change overtime. It was hypothesized that after deinstitutionalization, externalizing behavior problems would decrease among deinstitutionalized children while it would remain the same for never-institutionalized children and for children who remained in institution. However, the main effect of time as well as all interaction effects involving time on externalizing behavior were not significant. This means that there was no significant difference of externalizing behavior before and after deinstitutionalization. In addition, pattern of scores are the same among orphans and non-orphans before and after de-institutionalization. Time interval between the two measurement times may have played a role in this result.

Before as well as after deinstitutionalization, non-orphans deinstitutionalized children had more externalizing behavior than never-institutionalized children and children who remained in institution. This result is in line with with previous longitudinal research which indicated that externalizing behavior is quite stable and consistent during childhood and adolescence (Hill, Lochman, Coie, Greenberg, & Group, 2004). It also in accordance with studies that have found that children who display a wide range of externalizing problems are at the greatest risk for continued disorder in any setting including institution, family, school and community (Loeber &

Dishion, 1983). Bearing in mind that de-institutionalized and children who remained in institution used to be one group of institutionalized children, it would be assumed that deinstitutionalization program first targeted non-orphans with more externalizing behavior problems leaving in institution those with less externalizing behavior. The professional decision of deinstitutionalizing a child from orphanage to family is usually based on the necessity, need and best interest of the child (Mulheir & Browne, 2007).

As children with externalizing behavior pose enormous challenge in rearing (Meunier et al., 2011), caregivers may also profit the deinstitutionalization program to soften their work, or to get out of being blamed by selecting the so-called difficult children to be the first deinstitutionalized. A common characteristic of children with externalizing problem is that they have intense negative effects on the people who interact with them (Kendall, 2012).

Regarding biological living status, previous research has found that children who feel rejected are at risk for more negative outcome than children who feel accepted (Coie, Lochman, Terry, & Hyman, 1992). Non-orphans institutionalized are more likely to feel rejected by their living biological parents while orphans would have none to “blame”. In addition, in Rwanda, a number of institutionalized children with living parents was placed into orphanage following family conflicts (Bette Care Network et al., 2015). Parents’ behavior and cognitions have been found to be closely linked to their children’s socio-cognitive processes and behavior (Kendall, 2012).

The result disagrees with a comprehensive review of research on behavioral outcomes following deinstitutionalization which found overwhelmingly better behavioral out-comes after de-institutionalization (Parish, 2005). Furthermore, the current study also had a shorter post-deinstitutionalization follow-up window. Between the two-time measurement points (before and after deinstitutionalization) was only one-year period. It is possible that decreased behavior problems might be revealed over time for children who are reunified and improvement may take longer to be noticed (Bellamy, 2008). In the study of Bellamy (2008), behavior problems of reunited children decreased significantly after 36 month-follow up as compared to baseline.

To assess what are child and family characteristics that predict child’s externalizing behavior, standard multiple regression analysis was performed with Family relations, Parenting

involvement, Economic category, parents' perceived Quality of life, Time spent in family and child's Self-efficacy as potential predictors. The prediction model was statistically significant and accounted for approximately 27% of the variance of externalizing behavior. Externalizing behavior was primarily predicted by lower levels of family relationships, and to a lesser extent by lower levels of parents' perceived quality of life. In other words, better family relations contribute to the decrease of children's externalizing behavior and so does better quality of life. A further investigation was then carried out to assess whether family relationships mediate the effect of caregiver's perceived quality of life on children's externalizing behavior. Though still a weak percentage of variance was explained, the result revealed that there was mediator effect for family relationships in the relationship between parents' perceived quality of life and children's externalizing behavior. That is, better perceived quality of life leads to increased good family relationships, which in turn leads to the decrease of child's externalizing behavior. This result is in line with Graf, Landolt, Mori, & Boltshauser (2006) who found that good quality of life affected positively both family relationships and psychological adjustment of children. It can be assumed that positive perception of quality of life implies positive rating of the child's behavior and the child will avoid being perceived as difficult (Lochman & Dodge, 1998). On their turn, family relationships contribute to child's socialization. A study found that schemas acquired through socialization may have powerful effects on how children appraise the meaning of interpersonal behavior (Kendall, 2012).

Our results is contrary to Costello, Compton, Keeler, & Angold (2003) who found that poverty had an effect specifically to symptoms of conduct and oppositional defiant disorders. Present results emphasize rather the importance of perceptions of quality of life and family relationships.

2. Internalizing behavior

Deinstitutionalized and never-institutionalized children were assumed to have less internalizing problems than children who remained in institution. Using mixed-group analysis of variance we found significant difference between the three groups. Unexpectedly, results showed that internalizing behavior problems were higher among deinstitutionalized children and never-institutionalized children than children who remained in institution. As well, deinstitutionalized children had higher internalizing problems than never institutionalized children. The interaction

effect of institutionalization status and living status of the parents on internalizing behavior was not significant, meaning that the above group differences do not depend on whether a child is orphan or non-orphan.

One of explanation is to be found in the change overtime. It was hypothesized that after deinstitutionalization, internalizing behavior problems would decrease among deinstitutionalized children while it would remain the same for never-institutionalized children and for children who remained in institution. Results revealed that main effect of time as well as interaction effect of time and biological living status on internalizing behavior were significant. This means that there was a significant increase of internalizing behavior over time and this increase depends on institutionalization status. A significant increase was noted only among deinstitutionalized children. The three-way interaction between time, institutionalization status and biological living status was not significant, meaning that pattern of scores are the same among orphans and non-orphans before and after de-institutionalization.

Results of this study are in line with a study conducted by Lau, Litrownik, Newton, & Landsverk, (2003). They followed reunified children for approximately 2 years and found that reunification did not have a direct effect on internalizing problems as they had first to adapt to stressful events in the family environment which subsequently may increase the risk for poor internalizing behavioral outcomes.

Although, deinstitutionalized children in this sample presented more internalizing problems, their general risk for behavior problems is somewhat lessened over time. Results of the present study showed that internalizing behavior decrease with time a child spent in family. Contrary to studies that demonstrated that longer time in institution is associated to higher behavioral problems, this result is conform with MacKenzie et al., (2014) who observed that internalizing problems of reunified children decrease with time as children adjust to a prior move.

Internalizing problems usually increases with age over the life course and generally have a cumulative prevalence (Chan, Dennis, & Funk, 2008b). There was evidence that such problems may either emerge or exacerbate as children enter adolescence (Verhulst, Althaus, & Versluis-Den Bieman, 1990). However, in our sample we controlled for age and assumed that all participants

were at the average age. The observed higher rate of internalizing problems is not to be solely attributed to the placement into family.

Deinstitutionalized children were a group that had also higher internalizing problems compared to other two groups before deinstitutionalization. One possible explanation would be that caregivers in orphanage report fewer internalizing behavior as compared to parents or legal guardians in family (Stanger & Lewis, 1993). In their study of agreement among parents, teachers, and children on internalizing and externalizing behavior problems, the Stanger & Lewis (1993), teachers, comparable to tierce adult caring for the child, rated the lowest scores on internalizing behavior. Contrary, teachers rated the highest externalizing behavior. In a Turkish study, Externalizing prevalence was higher than Internalizing both in the orphanage and community samples (Simsek et al., 2007).

A child with internalizing behavior is more likely to be seen as a “good” child “easy to rear” than being seen as a child with reportable difficulties. In the setting like institution where children have less well-developed verbal skills in general and specifically an even more limited capacity to describe internal feeling states, internalizing disorders may be more difficult to detect (Tandon et al., 2009). The other way round, for various reasons, some caregivers may find it hard to accept that children may experience unpleasant psychological states such as internalizing behavior (Hazell, 2002).

Nevertheless, children with internalizing behavior problems are more likely to grow up to become depressed and anxious (APA, 1994). The nature of orphanage where caregivers work in shift and where a ratio caregiver/child is high (Dozier et al., 2012) make it difficult to pay attention and identify potential internalizing symptoms. Institutionalized children receive little response and attention from caregivers and might express little affect, which lets internalizing problems stay unnoticed (Matthew Colton & Roberts, 2007). In contrast to externalizing behaviors, which are disruptive or harmful to others, internalizing problems are intropunitive (Muhtadie, Zhou, Eisenberg, & Wang, 2013), symptoms may fluctuate in intensity (Hazell, 2002), and thus more difficult to detect in children. In addition, internalizing disorders tend to be viewed as less problematic caregivers (Tandon et al., 2009).

At the other hand, parents may also have overrated de-institutionalized children as a result of considering them as most vulnerable a priori or stress caused by receiving a new family member. In their study, Landsverk, Davis, Ganger, Newton, & Johnson, (1996), indicated that reunification was significantly associated with greater parent reported stressful life events which, in turn, may underpin the overrating of children's internalizing behavior. The reunification experience could take a toll on caregivers' mental health as they readjust to parenting roles (Bellamy, 2008). Also, having a history of living in orphanage is associated with stereotypes which may lead the assessor to under-rate the deinstitutionalized child (K. J. Bos, Zeanah Jr, Smyke, Fox, & Nelson III, 2010) in the effort of empathy.

Another explanation would be that children living in families in Rwanda are not set apart from developing internalizing behavior. At one hand, social perfectionism and authoritarian parenting have been linked to higher ratings of internalizing problems among children (Cook & Kearney, 2009). Socially prescribed perfectionism which refers to a belief that significant others expect one to be perfect is dominant in such cultures (Cook & Kearney, 2009). Rwandan families, as most collectivist cultures constitute such example (Bornstein, 2012; Cummings & Cummings, 2002). Contrary, in orphanage discipline is more liberal (Ministry of Gender and Family Promotion & Hope and Homes for Children, 2012), which may rather explain the high rates of externalizing behavior.

At the other hand, in a study of Bellamy (2008), parents' poorer mental health, have been associated with an increased risk for children's internalizing behavior problems. The history of Rwanda affected by compounded adversity where the dual agents of the legacy of the 1994 Genocide and HIV/AIDS have had devastating consequences for families may explain the higher rates of children's internalizing behavior. In community samples rates for PTSD range from 24.8% to 46.4% , for depression from 15.5% to 46.4% and add up to 58.9% for anxiety symptoms (Heim & Schaal, 2014). The risk for externalizing disorders was found to increase for those individuals with a contextual history of multiple adversities (Van der Vegt, van der Ende, Ferdinand, Verhulst, & Tiemeier, 2009).

Empathy towards a child may differ in orphanage where one is playing the role of employed staff and in family where one is playing the role of parental responsibilities. Studies have shown that

the more empathetic you are the more you notice others' mental health problems (Batson et al., 1996). In communities that experienced violence, studies observed high rate of empathy among victims (Batson et al., 1996). However, Learning to respond to others' distress with well-regulated empathy is an important developmental task linked to positive health outcomes and moral achievements (Tone & Tully, 2014). As noted by the latter authors, this important interpersonal skill set may also, paradoxically, confer risk for internalizing problems like depression and anxiety when present at extreme levels and in combination with certain individual characteristics or within particular contexts.

The last explanation of development of internalizing behavior within the family is to be found in child and family characteristics. In the present study, results revealed that internalizing behavior was primarily predicted by lower levels of family relationships, and to a lesser extent by lower levels of parents' perceived quality of life. In families where family relations are good, children have less risk to develop internalizing problems. Also children living in families that perceive their quality of life as good have lower risk to develop internalizing behavior. A further analysis revealed the moderating role of parenting involvement and perceived quality of life in the relationship between family relations and children's internalizing behavior. Analysis showed that among families who perceive their quality of life as moderate or low, family relationships contribute to the significant decrease of internalizing behavior when parenting involvement is moderate or high. However, among families who perceive their quality of life as high, family relationships don't contribute significantly to the decrease of child's internalizing behavior whether parenting involvement is high, moderate or low. A stable and caring family context was found to provide children with emotional security, physical defense, and access to resources. As well, effective parenting and monitoring can protect children from the negative impact of risk environments (Li, Chi, Sherr, Cluver, & Stanton, 2015). Findings from this study suggest the importance of supporting caregiver mental health as a target for intervention to improve behavioral health outcomes for children following reunification (Bellamy, 2008).

3. Attachment problems

De-institutionalized children and children who remained in institution had more attachment problems than never-institutionalized children but attachment-related avoidance problems did not

differ significantly between de-institutionalized children and children who remained in institution. Predicted interaction effect of institutionalization and biological living status on children's attachment-related avoidance problems was not significant meaning that differences above don't depend on whether a child have or not living biological parents.

After deinstitutionalization, attachment problems decreased only among deinstitutionalized children as expected, whereas, they did not change significantly among never-institutionalized children and children who remained in institution. Unexpectedly, the change over time did not depend on parents' biological living status.

This result is in line with several studies that have shown that changing caregiving environments changes children's attachments (Smyke et al., 2010) and studies which highlighted higher rates of attachment problems among institutionalized children compared to family reared children (Graham, 2006; Roberson, 2006; Smyke et al., 2012; Zeanah et al., 2005).

The decrease in attachment problems among deinstitutionalized children is in contrast with Fraley (2010) who testified that attachment-related avoidance increase with time. As in addition, the present study controlled for participant's age, this suggest that, the decrease is not due to purely developmental process.

The decrease of attachment problems among deinstitutionalized children suggests that their attachment signals met predictable environment and sensitive caregivers in receiving families which helped them develop an internal working model of a safe and responsive world (van den Dries, Juffer, van IJzendoorn, & Bakermans-Kranenburg, 2009). In contrast, regimented nature, high child-to-caregiver ratios, multiple shifts and frequent changes of caregivers in institutional environment may explain the higher level of attachment problems of children who remained in institution and deinstitutionalized children compared to never-institutionalized children in this study (Bakermans-Kranenburg et al., 2011b).

Previous researches have indicated that parent loss in childhood is associated with significant problematic consequences in attachment (Bowlby, 1980; Harris, 1995). However, results of this study found no significant effect of parental living status on attachment-related avoidance.

It would be assumed that many interrelating factors played a protective role. Those factors may include factors relating to child (such as their prior experiences of loss, and coping style), their family and social relationships (including relationship with the person who has died), their wider environment and culture, and the circumstances of the death (Ellis et al., 2013). No one of those factors were explored in the present study.

Further exploration of factors predicting attachment outcome revealed that less attachment-related avoidance problems were primarily predicted by higher level of parenting involvement, and to a lesser extent by higher levels of child's self-efficacy. Economic category, family relations, quality of life and time spent in family were not significant predictors of children's attachment-related avoidance problems. The present study also found that the effect of parenting involvement on attachment problems depends on family socio-economic category. The higher the economic category, the higher the decrease of attachment problems due to parenting involvement.

4. Self-esteem

The hypothesis that deinstitutionalized children have higher self-esteem than children who remained in institution and same level as never-institutionalized children was not confirmed. Results of the present study revealed that, if we ignore other variables, self-esteem do not differ significantly among the three groups. However, this study found that the difference in children's self-esteem of the three groups depends on their parents' biological living status. For orphans, we didn't find any significant difference while there were differences among non-orphans. As expected, among non-orphans, never-institutionalized children had higher self-esteem than de-institutionalized children and children who remained in institution while there was no significant difference between de-institutionalized children and children who remained in institution. The present study was expecting non-orphans to have higher self-esteem than orphans through all three groups. Unexpectedly, this was confirmed only among never-institutionalized children while there was no significant difference between self-esteem of orphans and non-orphans among de-institutionalized children and children who remained in institution. Non-orphans of the two groups who have been institutionalized failed to have higher self-esteem than orphans. This finding suggests that, in terms of self-esteem, institution is more detrimental for children with living parents than children without living parents.

These findings are not consistent with those of some prior researches. Nilofer Farooqi & Intezar (2009), for example, found that orphan children reported lower self-esteem as compared to the children with living parents. They argued that this is probably due to loss of their parents.

The present study was also expecting the increase in self-esteem only among deinstitutionalized children after deinstitutionalization. Unexpectedly, the increase in self-esteem was general taking all three groups together but this increase did not depend on the institutionalization status. This finding is not consistent with previous research in self-esteem. In the age range of our sample, some studies have emphasized the decline in self-esteem (Robins, Trzesniewski, Tracy, Gosling, & Potter, 2002) while others emphasized the stability of self-esteem considering that global self-esteem is moderately stable over time (Chung et al., 2013).

Exploration of predictors of self-esteem in family revealed that higher self-esteem was primarily predicted by higher level of self-efficacy, and to a lesser extent by higher levels of parenting involvement, family economic category. Unexpectedly, higher caregiver's perceived quality of life predicted rather lower level of self-esteem. Though, family relationships didn't significantly correlate with self-esteem, it was a significant predictor in the model. Further analysis showed that the relationship between parenting involvement and self-esteem was mediated by child's self-efficacy. High level of parenting involvement predicted high degree of children's self-efficacy.

This result is in line with previous studies showing that the poorer children evaluate their competencies, especially in comparison to those of their peers or to the standards of significant others, the more negative their self-esteem (Harter, 1999). Within Western cultures, self-esteem consistently has been demonstrated to be inversely related with parenting styles characterized by low levels of involvement (Herz & Gullone, 1999). However, in traditional collectivist culture where the present study was conducted, high parenting involvement was linked to high children's self-esteem. Another important contribution of this study is the demonstration of a mediating role of children's self-efficacy in the relationship between parenting and self-esteem. Parenting increases self-efficacy, which in turn increase self-esteem. After controlling for children's self-efficacy, the relationship between parenting and self-esteem was no longer significant.

3. Limitations and future orientation

In this section, limitations of the study are provided globally. Wherever applicable, measures taken to mitigate these limitations are also discussed. Future orientations are suggested for relevant related limitation.

The first limitation is that the research was carried out at the time when a national campaign of deinstitutionalization was being conducted in Rwanda. This might have influenced some respondents' responses, as they would respond not as they truly feel but rather in such a way as to prove they are advantages or disadvantages to the policy. In order to circumvent this limitation, our sample directly targeted orphanages in which deinstitutionalization programs have not yet begun and the one in which it had formally begun.

Quantitative data were solely collected on the basis of questionnaires. Their cultural validity is questionable as they were only validated for Western developed contexts. This limitation was mitigated by two ways. An English/Kinyarwanda translation and back-translation process carried out by a team of bilingual aimed at the conceptual equivalent of a word or phrase rather than a word-for-word translation. Furthermore, previous published studies used Western developed standard questionnaires in the context of Rwanda, and during their adaptation process, found no major cultural validity issues. For example, using focus groups and free lists, Boris, Thurman, Snider, Spencer, & Brown (2006) found that western tools such as the Center for Epidemiologic Studies Depression Scale (CES-D) had face validity with youth in Rwanda and could be adequately translated into Kinyarwanda.

On the other hand, all scales were used on a continuum without considering any standardized clinical cut-offs scores. Participants' groups were therefore compared among them without any external comparison criteria. Nevertheless, the results concerning some construct need to be interpreted with caution, as their Cronbach's α was low in the present thesis. It is the case of self-esteem score at T₂, attachment-related avoidance at T₂, and the two out of three subscales forming family relations index namely expressiveness and conflict subscales whose Cronbach's α were respectively, .67; .61; .23 and .43. To go a step further, biophysiological data could be used as a very objective data collection method in future studies as empirical biophysiological research

found early stress to be linked to changes in the central nervous system, which enhances the risk to develop psychopathology (Nemeroff, 1999). Other relatively objective measures should complementally be used including school reports.

This thesis used single rater mode for questionnaires involving the evaluation of the context or the situation of another person like the child Behavior checklist where a parent/primary caregiver rates behavior of a child. It might have been better to involve multiple raters rather than one type of rater like including mother, father, teacher and the child himself. Nevertheless, this procedure reduced self-reported bias that may have occurred elsewhere. This limitation has been dealt with by involving parents or caregivers who spend much time with the child and who knows better the child. Within institutions, all caregivers who are in charge of the child had to agree on every single item of child Behavior Checklist for example. Yet, for deinstitutionalized children not the same person of reference rated the same child before and after de-institutionalization. For that, we performed a correlation analysis of the two raters and found that observed variation in the rating of de-institutionalized children had no specific pattern as compared to the remaining groups.

Qualitative approach used for the first study precludes the possibility of generalizing beyond this sample. To alleviate this limitation, we involved multiple coders and investigated multiple focus group sessions to ensure theoretical saturation. In spite of that, generalizing findings from that kind of study was only an ideal. Simply, the study allowed experiences to be studied in detail so that new ways of understanding of the orphanization process can be generated. Given the lack of research exploring children's understanding and perceptions about orphanization, this detailed exploration was considered an essential first step into this area. A further strength of the qualitative study was the involvement of neutral coders who are not familiar with the studied topic and context which allowed to have an objective view. The credibility categories were also improved by further sharing to participants with the partial results to check whether the researcher's interpretation fitted their own experience. Future studies should investigate what are specific social-cultural values that need to be restored and in which conditions to make it possible the positive self-description by children.

A further limitation is the influence of the conceptualization of institutionalization and deinstitutionalization, which are not a simple variable. It is reasonable to assume that all the stages

of the period of transition to the institution embody a wide range of stress factors for the child. Consequently, research should be directed in isolating this variable in order to ascertain which variables are responsible for the observed change. For deinstitutionalization, variables related whether the child was moved to biological parents, foster care, kinship care or adoption would give more clarity to the results. Information about the interventions that the receiving family and the child benefited during the process of deinstitutionalization would also clarify results. In the future, it would be important to specifically analyze the impact of the different stages of the institutionalization and deinstitutionalization process on psychological adjustment.

All the same, variables confounding to parental death like deceased parent's gender, time since death, death circumstances and parental communication patterns (Raveis, Siegel, & Karus, 1999) as well as individual child factors such as temperament, school factors, and life events that are likely to follow parental death (Dowdney, 2000) remain insufficiently explored. Though our results are in line with the standards on this research domain, future studies should explore more.

In spite of parental living status, parents or caregivers' mental wellbeing, a variable that was not measured in this thesis, played probably a role in the response to self-report questionnaires as well as when they were rating their children. This was somehow alleviated by measuring their quality of life but further studies would rather use this variable as control or covariates in relevant analysis.

Finally, in a longitudinal study, there was few time measurement points and points were separated by several months. It provided only brief snapshots and reveal little about patterns and trajectories. Within this sample there is also variation in the total length of stay as children did not enter families at the same time. To deal with this, we controlled for time spent in family for relevant analysis but with further analysis different patterns might be identified for children who have shorter stays in family, and findings presented here should not be generalized to that population. Future study would be planned to use more frequent repeated measures.

4. Conclusion and implications

In conclusion, results of this study are consistent with the findings of previous research with regard to general negative effects of institutionalization in children, including, increased rates of psychological disturbance (Browne & Hamilton-Giachritsis, 2006). Our study also evidenced

some major strength, one of which being the access to parental living status, age, gender and culturally matched control sample of never-institutionalized sample, in which a certain proportion of children had also lost their parents, even if this proportion was smaller than in the institutionalized sample.

On the whole, the first remarkable addition to the existing literature is the evidence of a detrimental impact of having living or deceased parents alongside institutionalization status. Not only does institutionalization negatively impact children with regard to psychological adjustment, specifically externalizing behaviors, internalizing behavior, attachment and self-esteem but this effect is even more detrimental for children whose parents are still alive. This should be taken into account in order to develop and improve supportive specific interventions for children and considered when making the decision of placing or not a child with parents in an institution. The present study calls upon intensification of identifying and addressing the behavioral problems as part of deinstitutionalization process. It also provides first ways to what domains should be targeted first to improve psychological adjustment of children. externalizing and internalizing behavior, self-esteem and attachment constitute such primordial intervention focus. In addition, considering the orphanization process, the aim of interventions should be the improvement of the child self-description targeting identity problems, perceptions of parenthood and reasons that led the child to be separated from the family.

Though, the results also underscored the benefit of family placement for children living in institutions in their very first months of family life, it was proved that the longer the time in family the better the outcome. Yet, conditions for better psychological adjustment in family were enlightened including family relationships and parenting involvement. Interventions should focus on these family characteristics to improve children's psychological adjustment. Unfortunately, over time and without continued support or enduring interventions, the problems and risks that bring families be separated with their children can threaten children's behavioral health. In addition to interventions aiming at improving investigated family characteristics, families' motivation and readiness to receive a deinstitutionalized child should be highly considered in deinstitutionalization process.

A further remarkable contribution of this thesis is that it enlightened the usually controversial reasons behind the raised rate of psychological disturbance among institutionalized children (Roy, Rutter, & Pickles, 2000) by bringing in the assumption that ill effects are also associated with the conceptualization of what institutionalized children call orphanization experience. That conceptualization, mainly related to socio-cultural norms change, has specifically the influence on their self-description and decidedly on their psychological adjustment. Accordingly, the development of children services should consider the psychosocial impact of words used to do so taking into account the social cultural beliefs and norms as well as children's perceptions. Rather than relying mostly on a single directional message about the negative effects of institutionalization, deinstitutionalization campaign should also focus their messages on aspects related to restoring social cultural values and responding to children's wish. Clinical and social interventions plan to institutionalized children should be developed to enhance the positive self-description enabling to position themselves in a social changing and dynamic context.

Moreover, understanding the development of psychopathological problems during the process of institutionalization and de-institutionalization may be key to preventing high costs associated with these disorders across the life course (Shanahan et al., 2014).

Finally, on one hand, the results of the present study according which all never-institutionalized children living in families did not perform ideally in all investigated domains highlight the need to consider deinstitutionalization as an entire child care reform rather than solely closing institutions. Stigma due to negative stereotypes labelled to de-institutionalized children may then be reduced and parents/caregivers may treat deinstitutionalized and never-institutionalized children similarly. On the other, the results of the present study according which de-institutionalized children did not perform ideally in investigated adjustment domain may showcase the post-orphanage behavior. A cluster of learned (acquired) behaviors that could have been adaptive and effective in orphanages but became maladaptive and counter-productive in the new family environment (Gindis, 2012). Considering that psychological adjustment is a process and that institutional environment is more stressful than family environment as reviewed previously, better adjustment is expected among de-institutionalized children over the time.

For all that, the present thesis supports the beneficial effects of deinstitutionalization, not only on children's psychological adjustment but also to the restoration of traditional values such as family unity and social cohesion, especially in Rwandan society who has been affected by adverse history.

References

- Adekunle, J. (2007). *Culture and customs of Rwanda*. Greenwood Publishing Group.
- Ahmad, A., Qahar, J., Siddiq, A., Majeed, A., Rasheed, J., Jabar, F., & Von Knorring, A.-L. (2005). A 2-year follow-up of orphans' competence, socioemotional problems and post-traumatic stress symptoms in traditional foster care and orphanages in Iraqi Kurdistan. *Child: Care, Health and Development*, 31(2), 203–215.
- Ainsworth, F., & Thoburn, J. (2014). An exploration of the differential usage of residential childcare across national boundaries: Residential services. *International Journal of Social Welfare*, 23(1), 16–24. <http://doi.org/10.1111/ijsw.12025>
- Ainsworth, M. D. S. (1967). Infancy in Uganda: Infant care and the growth of love.
- Andersson, G. (1999). Children in residential and foster care—a Swedish example. *International Journal of Social Welfare*, 8(4), 253–266.
- Andersson, G. (2005). Family relations, adjustment and well-being in a longitudinal study of children in care. *Child & Family Social Work*, 10(1), 43–56.
- Atwine, B., Cantor-Graae, E., & Bajunirwe, F. (2005). Psychological distress among AIDS orphans in rural Uganda. *Social Science & Medicine*, 61(3), 555–564. <http://doi.org/10.1016/j.socscimed.2004.12.018>
- Auerbach, C., & Silverstein, L. B. (2003). *Qualitative data: An introduction to coding and analysis*. NYU press.
- Bakermans-Kranenburg, M. J., Steele, H., Zeanah, C. H., Muhamedrahimov, R. J., Vorria, P., Dobrova-Krol, N. A., ... Gunnar, M. R. (2011a). III. Attachment and emotional development in institutional care: characteristics and catch up. *Monographs of the Society for Research in Child Development*, 76(4), 62–91.
- Bakermans-Kranenburg, M. J., Steele, H., Zeanah, C. H., Muhamedrahimov, R. J., Vorria, P., Dobrova-Krol, N. A., ... Gunnar, M. R. (2011b). III. Attachment and emotional development in institutional care: characteristics and catch up. *Monographs of the Society for Research in Child Development*, 76(4), 62–91.
- Bakermans-Kranenburg, M. J., Van IJzendoorn, M. H., & Juffer, F. (2008). Earlier is better: a meta-analysis of 70 years of intervention improving cognitive development in institutionalized children. *Monographs of the Society for Research in Child Development*, 73(3), 279–293. <http://doi.org/10.1111/j.1540-5834.2008.00498.x>
- Balibutsa, M. (1985). *Les perspectives de la pensée philosophique bantu-rwandaise après Alexis Kagame*. Editions Université nationale du Rwanda, Librairie universitaire du Rwanda.
- Barrios, B., & Hartmann, D. (1988). Anxieties and fears. 1988a) *Behavioral Assessment of Childhood Disorders*. Guilford Press, New York, 196–262.
- Bartell, N. P., & Reynolds, W. M. (1986). Depression and self-esteem in academically gifted and nongifted children: A comparison study. *Journal of School Psychology*, 24(1), 55–61.
- Barth, R. P. (2005). Residential care: From here to eternity. *International Journal of Social Welfare*, 14(3), 158–162.
- Batson, C. D., Sympton, S. C., Hindman, J. L., Decruz, P., Todd, R. M., Weeks, J. L., ... Burns, C. T. (1996). “I’ve been there, too”: Effect on empathy of prior experience with a need. *Personality and Social Psychology Bulletin*, 22(5), 474–482.
- Behrendt, A., & Mbaye, S. M. (2008). *The psychosocial impact of parental loss and orphan hood in Cameroon*. Cameroun.
- Bellamy, J. L. (2008). Behavioral problems following reunification of children in long-term foster care. *Children and Youth Services Review*, 30(2), 216–228. <http://doi.org/10.1016/j.childyouth.2007.09.008>
- Betancourt, T. S., Meyers-Ohki, S., Stulac, S. N., Barrera, E., Mushashi, C., & Beardslee, W. R. (2011). Nothing can defeat combined hands (Abashize hamwe ntakibananira): Protective Processes and Resilience in Rwandan Children and Families Affected by HIV/AIDS. *Social Science & Medicine* (1982), 73(5), 693–701. <http://doi.org/10.1016/j.socscimed.2011.06.053>
- Betancourt, T. S., Rubin-Smith, J. E., Beardslee, W. R., Stulac, S. N., Fayida, I., & Safren, S. (2011). Understanding Locally, Culturally, and Contextually Relevant Mental Health Problems among Rwandan Children and Adolescents Affected by HIV/AIDS. *AIDS Care*, 23(4), 401–412. <http://doi.org/10.1080/09540121.2010.516333>
- Better Care Network, UNICEF, PEPFAR, & USAID. (2015). Country care profile: Rwanda. Retrieved from <http://www.bettercarenetwork.org/bcn-in-action/technical-guidance/country-care-profiles/country-care-profile-rwanda>
- Bigirimwami, A. (1984). *Imihango n'imigenzo n'imizilirizo mu Rwanda*.
- Black, D. (1978). The bereaved child. *Journal of Child Psychology and Psychiatry*, 19(3), 287–292. <http://doi.org/10.1111/j.1469-7610.1978.tb00471.x>

- Blascovich, J., & Tomaka, J. (1991). Measures of self-esteem. *Measures of Personality and Social Psychological Attitudes, 1*, 115–160.
- Boris, N. W., Brown, L. A., Thurman, T. R., Rice, J. C., Snider, L. M., Ntaganira, J., & Nyirazinyoye, L. N. (2008). Depressive symptoms in youth heads of household in Rwanda: correlates and implications for intervention. *Archives of Pediatrics & Adolescent Medicine, 162*(9), 836–843. <http://doi.org/10.1001/archpedi.162.9.836>
- Boris, N. W., Thurman, T. R., Snider, L., Spencer, E., & Brown, L. (2006). Infants and young children living in youth-headed households in Rwanda: Implications of emerging data. *Infant Mental Health Journal, 27*(6), 584–602.
- Bornstein, M. H. (2001). Parenting: Science and practice. *Parenting, 1*(1–2), 1–4.
- Bornstein, M. H. (2012). Cultural Approaches to Parenting. *Parenting, Science and Practice, 12*(2–3), 212–221. <http://doi.org/10.1080/15295192.2012.683359>
- Bos, K. J., Zeanah Jr, C. H., Smyke, A. T., Fox, N. A., & Nelson III, C. A. (2010). Stereotypies in children with a history of early institutional care. *Archives of Pediatrics & Adolescent Medicine, 164*(5), 406.
- Bos, K., Zeanah, C. H., Fox, N. A., Drury, S. S., McLaughlin, K. A., & Nelson, C. A. (2011). Psychiatric Outcomes in Young Children with a History of Institutionalization: *Harvard Review of Psychiatry, 19*(1), 15–24. <http://doi.org/10.3109/10673229.2011.549773>
- Bos, K., Zeanah, C. H., Fox, N. A., Drury, S. S., McLaughlin, K. A., & Nelson, C. A. (2011). Psychiatric outcomes in young children with a history of institutionalization. *Harv Rev Psychiatry, 19*. <http://doi.org/10.3109/10673229.2011.549773>
- Bowlby, J. (1980). *Loss, sadness, ami depression*. New York: Basic Books.
- Brenning, K., Soenens, B., Braet, C., & Bosmans, G. (2011). An adaptation of the Experiences in Close Relationships Scale-Revised for use with children and adolescents. *Journal of Social and Personal Relationships, 26*5407511402418.
- Browne, K. (2009a). The risk of harm to young children in institutional care. *The Save the Children Fund, UK*, 1–22.
- Browne, K. (2009b). The risk of harm to young children in institutional care. *The Save the Children Fund, UK*, 1–22.
- Browne, K., Hamilton-Giachritsis, C., Johnson, R., & Ostergren, M. (2006). Child Health: Overuse of institutional care for children in Europe. *BMJ: British Medical Journal, 332*(7539), 485.
- Bunkers, K., Cox, A., Gesiriech, S., & Olson, K. (2014). *Children, Orphanages, and Families: a Summary of Research to Help Guide Faith-based Action*. Retrieved from <http://www.bettercarenetwork.org/news/faith-to-action-initiative-launches-a-summary-of-research-to-help-guide-faith-based-action>
- Caroli, D. (1999). Socialisme et protection sociale: Une tautologie? L'enfance abandonnée en URSS (1917-1931). *Annales, 1291–1316*.
- Carrà, E. (2012). Residential care: an effective response to out-of-home children and young people?: Residential care: an effective response? *Child & Family Social Work, n/a-n/a*. <http://doi.org/10.1111/cfs.12020>
- Catlett, J. (n.d.). Understanding Avoidant/Anxious Attachment. Retrieved from <http://www.psychalive.org/anxious-avoidant-attachment/>
- Cernkovich, S. A., & Giordano, P. C. (1987). Family relationships and delinquency. *Criminology, 25*(2), 295–319.
- Chan, Y.-F., Dennis, M. L., & Funk, R. R. (2008a). Prevalence and comorbidity of major internalizing and externalizing problems among adolescents and adults presenting to substance abuse treatment. *Journal of Substance Abuse Treatment, 34*(1), 14–24.
- Chan, Y.-F., Dennis, M. L., & Funk, R. R. (2008b). Prevalence and comorbidity of major internalizing and externalizing problems among adolescents and adults presenting to substance abuse treatment. *Journal of Substance Abuse Treatment, 34*(1), 14–24.
- Charmaz, K. (2006). Constructing grounded theory: A practical guide through qualitative research. *Sage Publications Ltd, London*.
- Cheung, C., Goodman, D., Leckie, G., & Jenkins, J. M. (2011). Understanding contextual effects on externalizing behaviors in children in out-of-home care: Influence of workers and foster families. *Children and Youth Services Review, 33*(10), 2050–2060. <http://doi.org/10.1016/j.childyouth.2011.05.036>
- Chirozva, C., Mubaya, C. P., & Mukamuri, B. (2007). The traditional African family in the age of globalization. Retrieved from <http://www.beatafrica.org/htm/comm.pdf>
- Christophersen, E. R., & Mortweet, S. L. (2002). *Treatment that work for children: Empirically supported strategies for managing childhood problems*. Washington DC, USA: American Psychological Association.
- Chung, J. M., Robins, R. W., Trzesniewski, K. H., Nofle, E. E., Roberts, B. W., & Widaman, K. F. (2013). Continuity and Change in Self-Esteem During Emerging Adulthood. *Journal of Personality and Social Psychology, 106*(3), 469–483. <http://doi.org/10.1037/a0035135>

- Coie, J. D., Lochman, J. E., Terry, R., & Hyman, C. (1992). Predicting early adolescent disorder from childhood aggression and peer rejection. *Journal of Consulting and Clinical Psychology*, 60(5), 783.
- Colton, M., & Roberts, S. (2007). Factors that contribute to high turnover among residential child care staff. *Child & Family Social Work*, 12(2), 133–142. <http://doi.org/10.1111/j.1365-2206.2006.00451.x>
- Colton, M., & Williams, M. (2006). *Global Perspectives on Foster Family Care* (Russell House).
- Cook, L. C., & Kearney, C. A. (2009). Parent and youth perfectionism and internalizing psychopathology. *Personality and Individual Differences*, 46(3), 325–330. <http://doi.org/10.1016/j.paid.2008.10.029>
- Coopersmith, S. (2002). *Coopersmith Self-Esteem inventories: Manual, Instrument Sample*.
- Cosgrove, V. E., Rhee, S. H., Gelhorn, H. L., Boeldt, D., Corley, R. C., Ehringer, M. A., ... Hewitt, J. K. (2011). Structure and etiology of co-occurring internalizing and externalizing disorders in adolescents. *Journal of Abnormal Child Psychology*, 39(1), 109–123. <http://doi.org/10.1007/s10802-010-9444-8>
- Costello, E. J., Compton, S. N., Keeler, G., & Angold, A. (2003). Relationships between poverty and psychopathology: A natural experiment. *Jama*, 290(15), 2023–2029.
- Crenson, M. A. (1998). *Building the Invisible Orphanage: A Prehistory of the American Welfare System* (Harvard University Press). Retrieved from <http://www.amazon.com/exec/obidos/ASIN/0674465911>
- Cummings, E. M., & Cummings, J. S. (2002). Parenting and attachment. *Handbook of Parenting*, 5, 35–58.
- del Valle, J. F., Bravo, A., Alvarez, E., & Fernanz, A. (2007). Adult self-sufficiency and social adjustment in care leavers from children's homes: a long-term assessment. *Child & Family Social Work*, 51(4), 251–258. <http://doi.org/10.1111/j.1365-2206.2007.00510.x>
- Denis, P. (2005). *Never too small to remember: Memory work and resilience in times of AIDS*. Cluster Publications.
- Dew, J. (2009). The gendered meanings of assets for divorce. *Journal of Family and Economic Issues*, 30(1), 20–31.
- Dillon, S. A. (2008). The missing link: a social orphan protocol to the United Nations Convention on the Rights of the Child. *Human Rights and Globalization Law Review*, 1, 39.
- Dobrova-Krol, N. A., van IJendoorn, M. H., Bakermans-Kranenburg, M. J., Cyr, C., & Juffer, F. (2008). Physical growth delays and stress dysregulation in stunted and non-stunted Ukrainian institution-reared children. *Infant Behavior and Development*, 31(3), 539–553.
- Dona, G., Kalinganire, K., & Muramutsa, F. (2001). *The Rwandan experience of fostering separated children*. London: Save The Children. Retrieved from <http://resourcecentre.savethechildren.se/sites/default/files/documents/1461.pdf>
- Donkoh, C., Montgomery, P., & Underhill, K. (2006). Independent Living Programmes for Improving Outcomes for Young People Leaving the Care System. *Campbell Systematic Reviews*, (8). Retrieved from <http://www.campbellcollaboration.org/lib/project/17/>
- Dowdney, L. (2000). Annotation: Childhood bereavement following parental death. *Journal of Child Psychology and Psychiatry*, 41(7), 819–830.
- Dozier, M., Zeanah, C. H., Wallin, A. R., & Shaffer, C. (2012). Institutional care for young children: review of literature and policy implications. *Social Issues and Policy Review*, 6(1), 1–25.
- DuBois, D. L., & Flay, B. R. (2004). The healthy pursuit of self-esteem: comment on and alternative to the Crocker and Park (2004) formulation.
- Earley, L., & Cushway, D. (2002). The parentified child. *Clinical Child Psychology and Psychiatry*, 7(2), 163–178.
- Ellis, J., Dowrick, C., & Lloyd-Williams, M. (2013). The long-term impact of early parental death: lessons from a narrative study. *Journal of the Royal Society of Medicine*, 106(2), 57–67. <http://doi.org/10.1177/0141076812472623>
- Emler, N. (1994). Gossip, reputation, and social adaptation. In R. F. Goodman A. Ben-Ze'ev (Ed.), *Good gossip* (pp. 117–138). Lawrence, KS, US: University Press of Kansas.
- Engle, P. L., Groza, V. K., Groark, C. J., Greenberg, A., Bunkers, K. M., & Muhamedrahimov, R. J. (2011). VIII. The situation for children without parental care and strategies for policy change. *Monographs of the Society for Research in Child Development*, 76(4), 190–222.
- Essau, C. A., Sasagawa, S., & Frick, P. J. (2006). Psychometric properties of the Alabama parenting questionnaire. *Journal of Child and Family Studies*, 15(5), 595–614.
- Fahlberg, V. (2012). *A child's journey through placement*. Jessica Kingsley Publishers.
- Field, A. (2013). *Discovering statistics using IBM SPSS statistics*. Sage.
- Fortes, M. (2003). La dynamique de l'estime de soi et du soi physique: Un regard nouveau sur la variabilité et le fonctionnement des modèles hiérarchiques. *Unpublished PhD Thesis, University of Montpellier, Montpellier, France*.
- Foster, G. (2000). The capacity of the extended family safety net for orphans in Africa. *Psychology, Health & Medicine*, 5(1), 55–62. <http://doi.org/10.1080/135485000106007>

- Foster, G., Shakespeare, R., Chinemana, F., Jackson, H., Gregson, S., Marange, C., & Mashumba, S. (1995). Orphan prevalence and extended family care in a peri-urban community in Zimbabwe. *AIDS Care*, 7(1), 3–18. <http://doi.org/10.1080/09540129550126911>
- Fraley, R. C. (2002). Attachment stability from infancy to adulthood: Meta-analysis and dynamic modeling of developmental mechanisms. *Personality and Social Psychology Review*, 6(2), 123–151.
- Fraley, R. C., Heffernan, M. E., Vicary, A. M., & Brumbaugh, C. C. (2011). The experiences in close relationships—Relationship Structures Questionnaire: A method for assessing attachment orientations across relationships. *Psychological Assessment*, 23(3), 615.
- Frimpong-Manso, K. (2013). From walls to homes: Child care reform and deinstitutionalisation in Ghana: Child care reform and deinstitutionalisation in Ghana. *International Journal of Social Welfare*, n/a-n/a. <http://doi.org/10.1111/ijsw.12073>
- Gabriel, T., Keller, S., Bolter, F., Martin-Blachais, M.-P., & Séraphin, G. (2013). Out of home care in France and Switzerland. *Psychosocial Intervention*, 22(3), 215–225.
- Gearing, R. E., MacKenzie, M. J., Schwalbe, C. S., Brewer, K. B., & Ibrahim, R. W. (2013). Prevalence of mental health and behavioral problems among adolescents in institutional care in Jordan. *Psychiatr Serv*, 64. <http://doi.org/10.1176/appi.ps.201200093>
- Gindis, B. (2008). “Institutional Autism” in Children Adopted Internationally: Myth or Reality?. *International Journal of Special Education*, 23(3), 118–123.
- Gindis, B. (2012). Post-Orphanage Behavior In Internationally Adopted Children. Retrieved from <http://www.bgcenter.com/BGPublications/OrphanageBehavior.htm>
- Government of the Republic of Rwanda. (2015). Community-led Ubudehe categorisation kicks off. Retrieved from [http://www.gov.rw/news_detail/?tx_ttnews\[tt_news\]=1054&cHash=a315a8b0054e76f9c699f05ce24d3eb8](http://www.gov.rw/news_detail/?tx_ttnews[tt_news]=1054&cHash=a315a8b0054e76f9c699f05ce24d3eb8)
- Graf, A., Landolt, M. A., Mori, A. C., & Boltshauser, E. (2006). Quality of life and psychological adjustment in children and adolescents with neurofibromatosis type 1. *The Journal of Pediatrics*, 149(3), 348–353. <http://doi.org/10.1016/j.jpeds.2006.04.025>
- Graham, G. (2006). Attachment Theory and Wellbeing for the Young Person in Residential Care: the Provision of a Second Chance Secure Base for the Child in Crisis - viewcontent.cgi. *Relational Child and Youth Care Practice*, 19(1). Retrieved from <http://arrow.dit.ie/cgi/viewcontent.cgi?article=1017&context=aaschslarts>
- Gunnar, M. R., Morison, S. J., Chisholm, K., & Schuder, M. (2001). Salivary cortisol levels in children adopted from Romanian orphanages. *Development and Psychopathology*, 13(3), 611–628.
- Gunnar, M. R., & Van Dulmen, M. H. (2007a). Behavior problems in postinstitutionalized internationally adopted children. *Development and Psychopathology*, 19(1), 129–148.
- Gunnar, M. R., & Van Dulmen, M. H. M. (2007b). Behavior problems in postinstitutionalized internationally adopted children. *Development and Psychopathology*, 19(1), 129–148. <http://doi.org/10.1017/S0954579407070071>
- Harper, A. (1998). Development of the World Health Organisation WHOQOL-BREF quality of life assessment. *Psychological Medicine*, 28(3), 551–558.
- Harris, M. (1995). *The loss that is forever*. New York: Dutton.
- Harter, S. (1982). The perceived competence scale for children. *Child Development*, 87–97.
- Harter, S. (1999). *The construction of the self: A developmental perspective*. Guilford Press.
- Hawk, B., & McCall, R. B. (2010). CBCL Behavior Problems of Post-Institutionalized International Adoptees. *Clinical Child and Family Psychology Review*, 13(2), 199–211. <http://doi.org/10.1007/s10567-010-0068-x>
- Hayes, A. F. (2013). *Introduction to mediation, moderation and conditional process analysis: A regression-based approach* (The Guilford Press). New York.
- Hazell, P. (2002). Depression in children. *BMJ*, 325(7358), 229–230.
- Heim, L., & Schaal, S. (2014). Rates and predictors of mental stress in Rwanda: investigating the impact of gender, persecution, readiness to reconcile and religiosity via a structural equation model. *International Journal of Mental Health Systems*, 8(1), 1–9. <http://doi.org/10.1186/1752-4458-8-37>
- Herz, L., & Gullone, E. (1999). The relationship between self-esteem and parenting style a cross-cultural comparison of Australian and Vietnamese Australian adolescents. *Journal of Cross-Cultural Psychology*, 30(6), 742–761.
- Hofer, M. A. (1994). Early relationships as regulators of infant physiology and behavior. *Acta Paediatrica*, 83(s397), 9–18.
- Hofer, M. A. (2006). Psychobiological roots of early attachment. *Current Directions in Psychological Science*, 15(2), 84–88.
- Hooper, L. M. (2007). The application of attachment theory and family systems theory to the phenomena of parentification. *The Family Journal*, 15(3), 217–223.

- Hospitalism. (2009). In *Mosby's Medical Dictionary* (8th ed.).
- Howe, D., & Fearnley, S. (2003). Disorders of attachment in adopted and fostered children: Recognition and treatment. *Clinical Child Psychology and Psychiatry*, 8(3), 369–387.
- Howell, D. C. (2014). *Méthodes statistiques en sciences humaines* (2e éd., 4e tirage). Bruxelles: De Boeck.
- Hrды, S. B. (2009). Allomothers across Species, across Cultures, and through Time. *Substitute Parents: Biological and Social Perspectives on Alloparenting in Human Societies*, 3.
- Huggins, S. L. (1989). A comparative study of self-esteem of adolescent children of divorced lesbian mothers and divorced heterosexual mothers. *Journal of Homosexuality*, 18(1–2), 123–135.
- Human, L. J., Biesanz, J. C., Finseth, S. M., Pierce, B., & Le, M. (2014). To thine own self be true: Psychological adjustment promotes judgeability via personality–behavior congruence. *Journal of Personality and Social Psychology*, 106(2), 286–303. <http://doi.org/10.1037/a0034860>
- IJzendoorn, M. H. van, Luijk, M. P. C. M., & Juffer, F. (2008). IQ of Children Growing Up in Children's Homes: A Meta-Analysis on IQ Delays in Orphanages. *Merrill-Palmer Quarterly*, 54(3), 341–366. <http://doi.org/10.2307/23096249>
- Ismayilova, L., Ssewamala, F., & Huseynli, A. (2014). Reforming child institutional care in the Post-Soviet bloc: The potential role of family-based empowerment strategies. *Children and Youth Services Review*, 47, 136–148. <http://doi.org/10.1016/j.childyouth.2014.09.007>
- Jacob, C., Gross-Lesch, S., Jans, T., Geissler, J., Reif, A., Dempfle, A., & Lesch, K.-P. (2014). Internalizing and externalizing behavior in adult ADHD. *Attention Deficit and Hyperactivity Disorders*, 6(2), 101–110. <http://doi.org/10.1007/s12402-014-0128-z>
- Jayaraman, A., Gebreselassie, T., & Chandrasekhar, S. (2009). Effect of conflict on age at marriage and age at first birth in Rwanda. *Population Research and Policy Review*, 28(5), 551–567.
- Johnson, M. M., & Rhodes, R. (2008). Institutionalization: a theory of human behavior and the social environment. *Advances in Social Work*, 8(1), 219–236.
- Juffer, F., & van IJzendoorn, M. H. (2007). Adoptees do not lack self-esteem: A meta-analysis of studies on self-esteem of transracial, international, and domestic adoptees. *Psychological Bulletin*, 133(6), 1067–1083. <http://doi.org/10.1037/0033-2909.133.6.1067>
- Keil, V., & Price, J. M. (2006). Externalizing behavior disorders in child welfare settings: Definition, prevalence, and implications for assessment and treatment. *Children and Youth Services Review*, 28(7), 761–779. <http://doi.org/10.1016/j.childyouth.2005.08.006>
- Keller, H., & Otto, H. (2009). The cultural socialization of emotion regulation during infancy. *Journal of Cross-Cultural Psychology*, 40(6), 996–1011.
- Keller, T. (2003). Parental images as a guide to leadership sensemaking: An attachment perspective on implicit leadership theories. *The Leadership Quarterly*, 14(2), 141–160.
- Kendall, C. P. (2012). *Child and adolescent therapy* (4th ed.). New York.
- Keyes, C. L. M., Shmotkin, D., & Ryff, C. D. (2002). Optimizing well-being: The empirical encounter of two traditions. *Journal of Personality and Social Psychology*, 82(6), 1007–1022. <http://doi.org/10.1037/0022-3514.82.6.1007>
- Kirschner, D. (1990). The adopted child syndrome: Considerations for psychotherapy. *Psychotherapy in Private Practice*, 8(3), 93–100.
- Landsverk, J., Davis, I., Ganger, W., Newton, R., & Johnson, I. (1996). Impact of child psychosocial functioning on reunification from out-of-home placement. *Children and Youth Services Review*, 18(4), 447–462.
- Lani-Bayle, M. (1999). *L'enfant et son histoire: Vers une clinique narrative*. Erès.
- Lau, A. S., Litrownik, A. J., Newton, R. R., & Landsverk, J. (2003). Going Home: The Complex Effects of Reunification on Internalizing Problems Among Children in Foster Care. *Journal of Abnormal Child Psychology*, 31(4), 345–358. <http://doi.org/10.1023/A:1023816000232>
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer publishing company.
- LeVine, R. A., Dixon, S., LeVine, S., Richman, A., Keefer, C. H., Brazelton, T. B., & Leiderman, P. H. (1996). *Child care and culture: Lessons from Africa*. Cambridge University Press.
- LeVine, R. A., & Norman, K. (2001). The infant's acquisition of culture: Early attachment reexamined in anthropological perspective. *Publications-Society for Psychological Anthropology*, 12, 83–104.
- Levine, S. (2005). Developmental determinants of sensitivity and resistance to stress. *Psychoneuroendocrinology*, 30(10), 939–946.
- Li, X., Chi, P., Sherr, L., Cluver, L., & Stanton, B. (2015). Psychological Resilience among Children Affected by Parental HIV/AIDS: A Conceptual Framework. *Health Psychology and Behavioral Medicine*, 3(1), 217–235. <http://doi.org/10.1080/21642850.2015.1068698>

- Little, M., Kohm, A., & Thompson, R. (2005). The impact of residential placement on child development: Research and policy implications. *International Journal of Social Welfare*, 14(3), 200–209.
- Liu, J. (2004). Childhood Externalizing Behavior: Theory and Implications. *Journal of Child and Adolescent Psychiatric Nursing*, 17(3), 93–103. <http://doi.org/10.1111/j.1744-6171.2004.tb00003.x>
- Lochman, J. E., & Dodge, K. A. (1998). Distorted perceptions in dyadic interactions of aggressive and nonaggressive boys: Effects of prior expectations, context, and boys' age. *Development and Psychopathology*, 10(3), 495–512.
- Loeber, R., & Dishion, T. (1983). Early predictors of male delinquency: a review. *Psychological Bulletin*, 94(1), 68.
- Lohman, B. J., & Jarvis, P. A. (2000). Adolescent stressors, coping strategies, and psychological health studied in the family context. *Journal of Youth and Adolescence*, 29(1), 15–43.
- Loman, M. M., & Gunnar, M. R. (2010). Early experience and the development of stress reactivity and regulation in children. *Neuroscience & Biobehavioral Reviews*, 34(6), 867–876. <http://doi.org/10.1016/j.neubiorev.2009.05.007>
- Lyons-Ruth, K., Bureau, J.-F., Riley, C. D., & Atlas-Corbett, A. F. (2009). Socially Indiscriminate Attachment Behavior in the Strange Situation: Convergent and Discriminant Validity in Relation to Caregiving Risk, Later Behavior Problems, and Attachment Insecurity. *Development and Psychopathology*, 21(2), 355–372. <http://doi.org/10.1017/S0954579409000376>
- MacKenzie, M. J., Gearing, R. E., Schwalbe, C. S., Ibrahim, R. W., Brewer, K. B., & Al-Sharaihah, R. (2014). Child mental health in Jordanian orphanages: effect of placement change on behavior and caregiving. *BMC Pediatrics*, 14(1), 1–8. <http://doi.org/10.1186/s12887-014-0316-1>
- Mann, M. (Michelle), Hosman, C. M. H., Schaalma, H. P., & de Vries, N. K. (2004). Self-esteem in a broad-spectrum approach for mental health promotion. *Health Education Research*, 19(4), 357–372. <http://doi.org/10.1093/her/cyg041>
- Manso, J. M. M., García-Baamonde, M. E., Alonso, M. B., & Barona, E. G. (2011). An analysis of how children adapt to residential care. *Children and Youth Services Review*, 33(10), 1981–1988. <http://doi.org/10.1016/j.childyouth.2011.05.024>
- Marks, N. F., Jun, H., & Song, J. (2007). Death of Parents and Adult Psychological and Physical Well-Being A Prospective US National Study. *Journal of Family Issues*, 28(12), 1611–1638.
- Marshall, P. J., & Fox, N. A. (2004). A comparison of the electroencephalogram between institutionalized and community children in Romania. *Journal of Cognitive Neuroscience*, 16(8), 1327–1338.
- Mash, E. J., & Terdal, L. G. (1988). *Behavioral assessment of childhood disorders*. Guilford Press.
- Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, 50(4), 370.
- McCall, R. B., Groark, C. J., & Rygaard, N. P. (2014). Global research, practice, and policy issues on the care of infants and young children at risk: the articles in context: Introduction. *Infant Mental Health Journal*, 35(2), 87–93. <http://doi.org/10.1002/imhj.21441>
- McInerney-Ernst, E. M. (2008a). *Adjustment outcomes following paternal loss among adolescents* (M.A.). University of Missouri - Kansas City, Ann Arbor. Retrieved from ProQuest Dissertations & Theses A&I. (304536499)
- McInerney-Ernst, E. M. (2008b). *Adjustment outcomes following paternal loss among adolescents - ProQuest*. University of Missouri, Kansas City. Retrieved from <http://search.proquest.com/docview/60357721/4F67223EB0324742PQ/1?accountid=17206>
- McKee, L., Colletti, C., Rakow, A., Jones, D. J., & Forehand, R. (2008). Parenting and Child Externalizing Behaviors: Are the Associations Specific or Diffuse? *Aggression and Violent Behavior*, 13(3), 201–215. <http://doi.org/10.1016/j.avb.2008.03.005>
- McMahan True, M., Pisani, L., & Oumar, F. (2001). Infant–mother attachment among the Dogon of Mali. *Child Development*, 72(5), 1451–1466.
- Meehan, C. L. (2005). The effects of residential locality on parental and alloparental investment among the Aka foragers of the Central African Republic. *Human Nature*, 16(1), 58–80.
- Meunier, J. C., Roskam, I., Stievenart, M., van de Moortele, G., Browne, D. T., & Kumar, A. (2011). Externalizing behavior trajectories: The role of parenting, sibling relationships and child personality. *Journal of Applied Developmental Psychology*, 32(1), 20–33. <http://doi.org/10.1016/j.appdev.2010.09.006>
- Mikulincer, M., Shaver, P. R., & Pereg, D. (2003). Attachment theory and affect regulation: The dynamics, development, and cognitive consequences of attachment-related strategies. *Motivation and Emotion*, 27(2), 77–102.
- Ministry of Gender and Family Promotion, & Hope and Homes for Children. (2012). *National Survey of Institutions for Children in Rwanda*. Kigali, Rwanda. Retrieved from

- http://www.crin.org/docs/national%20survey%20of%20institutions%20for%20children%20in%20rwanda_final.pdf
- Moos, R. H., & Moos, B. S. (1994). *Family environment scale manual*. Consulting Psychologists Press.
- Morantz, G., & Heymann, J. (2010). Life in institutional care: the voices of children in a residential facility in Botswana. *AIDS Care*, 22(1), 10–16. <http://doi.org/10.1080/09540120903012601>
- Mpofu, E. (1994). Exploring the Self-Concept in an African Culture. *The Journal of Genetic Psychology*, 155(3), 341.
- Mueller, J., & Sherr, L. (2009). Abandoned babies and absent policies. *Health Policy*, 93(2–3), 157–164. <http://doi.org/10.1016/j.healthpol.2009.06.002>
- Muhtadie, L., Zhou, Q., Eisenberg, N., & Wang, Y. (2013). Predicting internalizing problems in Chinese children: The unique and interactive effects of parenting and child temperament. *Development and Psychopathology*, 25(3), 653–667.
- Mulheir, G., & Browne, K. (2007). *De-institutionalising and transforming children's services: a guide to good practice*. Birmingham: University of Birmingham.
- Murali, V., & Oyeboode, F. (2004). Poverty, social inequality and mental health. *Advances in Psychiatric Treatment*, 10(3), 216–224. <http://doi.org/10.1192/apt.10.3.216>
- Muris, P. (2001). A brief questionnaire for measuring self-efficacy in youths. *Journal of Psychopathology and Behavioral Assessment*, 23(3), 145–149.
- Muris, P. (2002). Relationships between self-efficacy and symptoms of anxiety disorders and depression in a normal adolescent sample. *Personality and Individual Differences*, 32(2), 337–348.
- Myers, L. L., & Rittner, B. (2001). Adult psychosocial functioning of children raised in an orphanage. *Residential Treatment for Children & Youth*, 18(4), 3–21.
- National Institute of Statistics of Rwanda (NISR), Ministry of Health Rwanda, & ICF International. (2015). Rwanda Demographic and Health Survey 2014-15: Key Indicators. Retrieved from http://moh.gov.rw/fileadmin/templates/Narative_Report/Rwanda_DHS_2014-15_KIR.pdf
- National Commission for Children. (2014). Ending the institutionlisation of children in Rwanda- the Time is Now. Retrieved from <http://www.ncc.gov.rw/spip.php?article143>
- National Commission for Children Rwanda. (2012). Strategy for National Child Care Reform. Retrieved from http://www.ncc.gov.rw/fileadmin/templates/document/strategy_for_national_child_care_reform_1_.pdf
- National Institute of Statistics of Rwanda (NISR). (2015). The Third Integrated Household Living Conditions Survey (EICV3).
- Nemeroff, C. (1999). The preeminent role of early untoward experience on vulnerability to major psychiatric disorders: the nature-nurture controversy revisited and soon to be resolved. *Molecular Psychiatry*, 4(2), 106–108.
- Newton, R. R., Litrownik, A. J., & Landsverk, J. A. (2000). Children and youth in foster care: disentangling the relationship between problem behaviors and number of placements. *Child Abuse & Neglect*, 24(10), 1363–1374. [http://doi.org/10.1016/S0145-2134\(00\)00189-7](http://doi.org/10.1016/S0145-2134(00)00189-7)
- Nilofer Farooqi, Y., & Intezar, M. (2009). Differences in self-esteem of orphan children and children living with their parents. *Journal of Raman Spectroscopy*, 46(2). Retrieved from Differences in self-esteem of orphan children and children living with their parents
- Nothomb, D. (1965). Un humanisme africain. *Brussels: Lumen Vitae*.
- Nothomb, D., & Kagame, A. (1965). *Un humanisme africain : valeurs et pierres d'attente*. Bruxelles : Lumen Vitae. Retrieved from <http://www.msscc.es/P/C6.pdf>
- Otto, H., Potinius, I., & Keller, H. (2013). Cultural Differences in Stranger–Child Interactions: A Comparison Between German Middle-Class and Cameroonian Nso Stranger–Infant Dyads. *Journal of Cross-Cultural Psychology*, 22022113509133.
- Panter-Brick, C., & Smith, M. T. (2000). *Abandoned children*. Cambridge University Press.
- Parish, S. L. (2005). Deinstitutionalization in two states: The impact of advocacy, policy, and other social forces on services for people with developmental disabilities. *Research and Practice for Persons with Severe Disabilities*, 30(4), 219–231.
- Pine, B. A., Spath, R., Werrbach, G. B., Jenson, C. E., & Kerman, B. (2009). A better path to permanency for children in out-of-home care. *The International Association of Outcome-Based Evaluation and Research in Family and Children's Services: Research from Around the World*, 31(10), 1135–1143. <http://doi.org/10.1016/j.chilyouth.2009.07.006>
- Pinhoiro, P. S. (2006). *World report on violence against children*. Geneva: United Nations Publ.

- Pinheiro Mota, C., & Matos, P. M. (2012). Peer attachment, coping, and self-esteem in institutionalized adolescents: the mediating role of social skills. *European Journal of Psychology of Education*, 28(1), 87–100. <http://doi.org/10.1007/s10212-012-0103-z>
- Pituch, K. A., Whittaker, T. A., & Stevens, J. (2007). *Intermediate Statistics: A Modern Approach, Third Edition* (3rd ed.). USA: Taylor & Francis Group.
- Plummer, D. (2007). *Self-esteem games for children*. Jessica Kingsley Publishers.
- Pollak, S. D., Nelson, C. A., Schlaak, M. F., Roeber, B. J., Wewerka, S. S., Wiik, K. L., ... Gunnar, M. R. (2010). Neurodevelopmental Effects of Early Deprivation in Post-Institutionalized Children. *Child Development*, 81(1), 224–236. <http://doi.org/10.1111/j.1467-8624.2009.01391.x>
- Rabinovich, M., & Kacen, L. (2010). Advanced relationships between categories analysis as a qualitative research tool. *Journal of Clinical Psychology*, 66(7), 698–708.
- Rauktis, M. E., Fusco, R. A., Cahalane, H., Bennett, I. K., & Reinhart, S. M. (2011). “Try to make it seem like we’re regular kids”: Youth perceptions of restrictiveness in out-of-home care. *Children and Youth Services Review*, 33(7), 1224–1233. <http://doi.org/10.1016/j.childyouth.2011.02.012>
- Raveis, V. H., Siegel, K., & Karus, D. (1999). Children’s Psychological Distress Following the Death of a Parent. *Journal of Youth and Adolescence*, 28(2), 165.
- Rheingold, A. A., Smith, D. W., Ruggiero, K. J., Saunders, B. E., Kilpatrick, D. G., & Resnick, H. S. (2004). Loss, trauma exposure, and mental health in a representative sample of 12-17-year-old youth: data from the National Survey of Adolescents. *Journal of Loss and Trauma*, 9(1), 1–19. <http://doi.org/10.1080/15325020490255250>
- Roberson, K. C. (2006). Attachment and caregiving behavioral systems in intercountry adoption: A literature review. *Children and Youth Services Review*, 28(7), 727–740. <http://doi.org/10.1016/j.childyouth.2005.07.008>
- Robins, R. W., Trzesniewski, K. H., Tracy, J. L., Gosling, S. D., & Potter, J. (2002). Global self-esteem across the life span. *Psychology and Aging*, 17(3), 423–434. <http://doi.org/10.1037//0882-7974.17.3.423>
- Rogosch, F. A., & Cicchetti, D. (2005). Child maltreatment, attention networks, and potential precursors to borderline personality disorder. *Development and Psychopathology*, 17(4), 1071.
- Rosenthal, J. A., & Groze, V. K. (1994). A longitudinal study of special-needs adoptive families. *Child Welfare*, 73(6), 689.
- Rothbaum, F., & Trommsdorff, G. (2007). Do roots and wings complement or oppose one another?: The socialization of relatedness and autonomy in cultural context.
- Rothman, P. E. (1962). A note on hospitalism. *Pediatrics*, 30(6), 995–999.
- Rothwell, D., & Han, C.-K. (2009). Assets as a Resource Variable in the Stress Management of Low-income Families. *CSD Working Paper*, 9(50).
- Roy, P., & Rutter, M. (2006). Institutional care: associations between inattention and early reading performance. *Journal of Child Psychology and Psychiatry*, 47(5), 480–487. <http://doi.org/10.1111/j.1469-7610.2005.01526.x>
- Roy, P., Rutter, M., & Pickles, A. (2000). Institutional Care: Risk from Family Background or Pattern of Rearing? *Journal of Child Psychology and Psychiatry*, 41(2), 139–149. <http://doi.org/10.1111/1469-7610.00555>
- Save The Children. (2009). *Keeping Children Out of harmful Institutions: Why we should be investing in family-based care*. London, UK. Retrieved from <http://www.savethechildren.org.uk/resources/online-library/keeping-children-out-of-harmful-institutions-why-we-should-be-investing-in-family-based-care>
- Shanahan, L., Calkins, S. D., Keane, S. P., Kelleher, R., & Suffness, R. (2014). Trajectories of internalizing symptoms across childhood: The roles of biological self-regulation and maternal psychopathology. *Development and Psychopathology*, 26(4pt2), 1353–1368.
- Shaw, T. V., Bright, C. L., & Sharpe, T. L. (2015). Child welfare outcomes for youth in care as a result of parental death or parental incarceration. *Child Abuse & Neglect*, 42, 112–120. <http://doi.org/10.1016/j.chiabu.2015.01.002>
- Shechory, M., & Sommerfeld, E. (2007). Attachment Style, Home-Leaving Age and Behavioral Problems Among Residential Care Children. *Child Psychiatry and Human Development*, 37(4), 361–373. <http://doi.org/10.1007/s10578-007-0051-z>
- Silbereisen, R. K., & Walper, S. (1988). *The role of social ties in coping with economic deprivation: paper pres. at the 2. Biennal Meeting of the Soc. for Research on Adolescence, Alexandria, VA, march 25-27, 1988*. Techn. Univ., Inst. für Psychologie.
- Silva, F. (1995). Orphelinats, centres d’enfants non-accompagnés et familles d’accueil au Rwanda. Retrieved from <http://base.d-p-h.info/fr/fiches/premierdph/fiche-premierdph-2214.html>

- Simsek, Z., Erol, N., Öztö, D., & Münir, K. (2007). Prevalence and predictors of emotional and behavioral problems reported by teachers among institutionally reared children and adolescents in Turkish orphanages compared with community controls. *Children and Youth Services Review*, 29(7), 883–899. <http://doi.org/10.1016/j.childyouth.2007.01.004>
- Skevington, S. M., Lotfy, M., & O’Connell, K. A. (2004). The World Health Organization’s WHOQOL-BREF quality of life assessment: psychometric properties and results of the international field trial. A report from the WHOQOL group. *Quality of Life Research*, 13(2), 299–310.
- Smith, J. (2001). The adopted child syndrome: A methodological perspective. *Families in Society: The Journal of Contemporary Social Services*, 82(5), 491–497.
- Smith, K. W., Avis, N. E., & Assmann, S. F. (1999). Distinguishing between quality of life and health status in quality of life research: a meta-analysis. *Quality of Life Research*, 8(5), 447–459.
- Smith, M. (2011). Measures for assessing parenting in research and practice. *Child and Adolescent Mental Health*, 16(3), 158–166.
- Smyke, A. T., Koga, S. F., Johnson, D. E., Fox, N. A., Marshall, P. J., Nelson, C. A., & Zeanah, C. H. (2007). The caregiving context in institution-reared and family-reared infants and toddlers in Romania. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, 48(2), 210–218. <http://doi.org/10.1111/j.1469-7610.2006.01694.x>
- Smyke, A. T., Zeanah, C. H., Fox, N. A., Nelson, C. A., & Guthrie, D. (2010). Placement in Foster Care Enhances Quality of Attachment Among Young Institutionalized Children. *Child Development*, 81(1), 212–223. <http://doi.org/10.1111/j.1467-8624.2009.01390.x>
- Smyke, A. T., Zeanah, C. H., Gleason, M. M., Drury, S. S., Fox, N. A., Nelson, C. A., & Guthrie, D. (2012). A randomized controlled trial comparing foster care and institutional care for children with signs of reactive attachment disorder. *American Journal of Psychiatry*, 169(5), 508–514.
- Sonuga-Barke, E. J., Schlotz, W., & Rutter, M. (2010). VII. Physical growth and maturation following early severe institutional deprivation: Do they mediate specific psychopathological effects? *Monographs of the Society for Research in Child Development*, 75(1), 143–166.
- Sonuga-Barke, E., & Rubia, K. (2008). Inattentive/overactive children with histories of profound institutional deprivation compared with standard ADHD cases: a brief report. *Child: Care, Health and Development*, 34(5), 596–602.
- Souverein, F. A., Van der Helm, G. H. P., & Stams, G. J. J. M. (2013). “Nothing works” in secure residential youth care? *Children and Youth Services Review*, 35(12), 1941–1945. <http://doi.org/10.1016/j.childyouth.2013.09.010>
- Spitz, R. A. (1945). Hospitalism; an inquiry into the genesis of psychiatric conditions in early childhood. *The Psychoanalytic Study of the Child*, 1, 53.
- St, P.-U. (2008). The effects of early social-emotional and relationship experience on the development of young orphanage children. The St. Petersburg-USA Orphanage Research Team. *Monographs of the Society for Research in Child Development*, 73(3), vii.
- Stanger, C., & Lewis, M. (1993). Agreement among parents, teachers, and children on internalizing and externalizing behavior problems. *Journal of Clinical Child Psychology*, 22(1), 107–116.
- Steele, Steele, Archer, Jin, & Herreros. (2009). Enhancing security and diminishing disorganization among Chinese orphans: Beneficial effects of a granny program.
- Stellern, S., Esposito, E., Mliner, S., Pears, K., & Gunnar, M. (2014). Increased freezing and decreased positive affect in postinstitutionalized children. *Journal of Child Psychology and Psychiatry*, 55(1), 88–95. <http://doi.org/10.1111/jcpp.12123>
- Stelmaszuk, Z. W. (2002). Residential care in Poland: Past, present and future. *International Journal of Child & Family Welfare*, (3), 1002–111.
- Strauss, A., & Corbin, J. (1994). Grounded theory methodology. *Handbook of Qualitative Research*, 273–285.
- Tandon, M., Cardeli, E., & Luby, J. (2009). Internalizing disorders in early childhood: A review of depressive and anxiety disorders. *Child and Adolescent Psychiatric Clinics of North America*, 18(3), 593–610.
- Taylor, S. E. (1983). Adjustment to threatening events: A theory of cognitive adaptation. *American Psychologist*, 38(11), 1161–1173. <http://doi.org/10.1037/0003-066X.38.11.1161>
- The Faith to Action Initiative. (2014). Children, Orphanages, and Families: A summary of research to help guide faith-based action. Retrieved May 14, 2016, from <http://faithtoaction.org/wp-content/uploads/2014/03/Summary-of-Research4.pdf>

- The St. Petersburg—USA Orphanage Research Team. (2008). The effects of early social-emotional and relationship experience on the development of young orphanage children. *Monographs of the Society for Research in Child Development*, 73(3), vii-295. <http://doi.org/10.1111/j.1540-5834.2008.00483.x>
- The University of Nottingham. (2012). Child Abandonment and its prevention in Europe. The European Commission's Daphne Programme. Retrieved from : <http://www.bettercarenetwork.org/BCN/details.asp?id=30091&themeID=1001&topicID=1006>
- The WHOQOL Group. (1995). The World Health Organization quality of life assessment (WHOQOL): Position paper from the World Health Organization. *Quality of Life in Social Science and Medicine*, 41(10), 1403–1409. [http://doi.org/10.1016/0277-9536\(95\)00112-K](http://doi.org/10.1016/0277-9536(95)00112-K)
- Thompson, M. P., Kaslow, N. J., Kingree, J. B., King, M., Bryant, L. J., & Rey, M. (1998). Psychological symptomatology following parental death in a predominantly minority sample of children and adolescents. *Journal of Clinical Child Psychology*, 27(4), 434–441. http://doi.org/10.1207/s15374424jccp2704_7
- Thurman, T. R., Snider, L. A., Boris, N. W., Kalisa, E., Nyirazinyoye, L., & Brown, L. (2008a). Barriers to the community support of orphans and vulnerable youth in Rwanda. *Social Science & Medicine*, 66(7), 1557–1567. <http://doi.org/10.1016/j.socscimed.2007.12.001>
- Thurman, T. R., Snider, L. A., Boris, N. W., Kalisa, E., Nyirazinyoye, L., & Brown, L. (2008b). Barriers to the community support of orphans and vulnerable youth in Rwanda. *Social Science & Medicine*, 66(7), 1557–1567. <http://doi.org/10.1016/j.socscimed.2007.12.001>
- Tone, E. B., & Tully, E. C. (2014). Empathy as a “Risky Strength”: A Multilevel Examination of Empathy and Risk for Internalizing Disorders. *Development and Psychopathology*, 26(4 0 2), 1547–1565. <http://doi.org/10.1017/S0954579414001199>
- Torres, N., Maia, J., Verissimo, M., Fernandes, M., & Silva, F. (2012). Attachment security representations in institutionalized children and children living with their families: links to problem behaviour. *Clinical Psychology & Psychotherapy*, 19(1), 25–36.
- Toth, S. L., & Cicchetti, D. (2013). A Developmental Psychopathology Perspective on Child Maltreatment. *Child Maltreatment*, 18(3), 135–139. <http://doi.org/10.1177/1077559513500380>
- Tottenham, N. (2012). Risk and Developmental Heterogeneity in Previously Institutionalized Children. *Journal of Adolescent Health*, 51(2), S29–S33. <http://doi.org/10.1016/j.jadohealth.2012.04.004>
- Trudeau, L., Spoth, R., Randall, G. K., Mason, W. A., & Shin, C. (2012). Internalizing symptoms: Effects of a preventive intervention on developmental pathways from early adolescence to young adulthood. *Journal of Youth and Adolescence*, 41(6), 788–801.
- Ukwamedua, N. U. (2011). A Critical Review of Alexis Kagame's Four Categories of African Philosophy. *OGIRISI: A New Journal of African Studies*, 8(1), 248–256.
- UN Development Programme (UNDP). (2015). Human Development Report 2015. Retrieved from http://hdr.undp.org/sites/default/files/2015_human_development_report.pdf
- UN General Assembly. Guidelines for the Alternative Care of Children, Pub. L. No. A/RES/64/142 (2010). Retrieved from <http://www.refworld.org/docid/4c3acd162.html>
- UNICEF. (2010). At home or in a home: Formal care and adoption of children. UNICEF. Retrieved from <http://www.unicef.org/protection/Web-Unicef-rapport-home-20110623v2.pdf>
- UNICEF. (2013). State of the World's Children. Retrieved from : <http://www.unicef.org/sowc/>
- van den Dries, L., Juffer, F., van IJzendoorn, M. H., & Bakermans-Kranenburg, M. J. (2009). Fostering security? A meta-analysis of attachment in adopted children. *Children and Youth Services Review*, 31(3), 410–421. <http://doi.org/10.1016/j.childyouth.2008.09.008>
- Van der Vegt, E. J., van der Ende, J., Ferdinand, R. F., Verhulst, F. C., & Tiemeier, H. (2009). Early childhood adversities and trajectories of psychiatric problems in adoptees: Evidence for long lasting effects. *Journal of Abnormal Child Psychology*, 37(2), 239–249.
- van IJzendoorn, M. H., Palacios, J., Sonuga-Barke, E. J. S., Gunnar, M. R., Vorria, P., McCall, R. B., ... Juffer, F. (2011). Children in Institutional Care: Delayed Development and Resilience. *Monographs of the Society for Research in Child Development*, 76(4), 8–30. <http://doi.org/10.1111/j.1540-5834.2011.00626.x>
- Veale, A., & Donà, G. (2003). Street children and political violence: a socio-demographic analysis of street children in Rwanda. *Child Abuse & Neglect*, 27(3), 253–269.
- Verhulst, F. C., Althaus, M., & Versluis-Den Bieman, H. J. (1990). Problem behavior in international adoptees: I. An epidemiological study. *Journal of the American Academy of Child & Adolescent Psychiatry*, 29(1), 94–103.
- Voydanoff, P. (2005). Toward a conceptualization of perceived work-family fit and balance: a demands and resources approach. *Journal of Marriage and Family*, 67(4), 822–836.

- Walakira, E. J., Ochen, E. A., Bukuluki, P., & Alllan, S. (2014). Residential care for abandoned children and their integration into a family-based setting in Uganda: Lessons for policy and programming: Integration of Abandoned Children into a Family Setting. *Infant Mental Health Journal*, 35(2), 144–150. <http://doi.org/10.1002/imhj.21432>
- Wan, K. W. (2008). Mental health and poverty. *Perspectives in Public Health*, 128(3), 108.
- Wei, M., Russell, D. W., Mallinckrodt, B., & Vogel, D. L. (2007). The Experiences in Close Relationship Scale (ECR)-short form: Reliability, validity, and factor structure. *Journal of Personality Assessment*, 88(2), 187–204.
- Weinstock, M. (2005). The potential influence of maternal stress hormones on development and mental health of the offspring. *Brain, Behavior, and Immunity*, 19(4), 296–308.
- Weisner, T. S. (2002). Ecocultural pathways, family values, and parenting. *Parenting: Science and Practice*, 2(3), 325–334.
- Wetter, E. K., & El-Sheikh, M. (2012). Trajectories of children's internalizing symptoms: The role of maternal internalizing symptoms, respiratory sinus arrhythmia and child sex. *Journal Of Child Psychology And Psychiatry*, 53(2), 168–177.
- Whetten, K., Ostermann, J., Whetten, R. A., Pence, B. W., O'Donnell, K., Messer, L. C., ... The Positive Outcomes for Orphans (POFO) Research Team. (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. <http://doi.org/10.1371/journal.pone.0008169>
- Wolff, M. S., & Ijzendoorn, M. H. (1997). Sensitivity and attachment: A meta-analysis on parental antecedents of infant attachment. *Child Development*, 68(4), 571–591.
- Worden, J. W., & Silverman, P. R. (1996). Parental Death and the Adjustment of School-Age Children. *Omega*, 33(2), 91–102.
- Youngleson, M. L. (1973). The need to affiliate and self-esteem in institutionalized children. *Journal of Personality and Social Psychology*, 26(2), 280–286. <http://doi.org/10.1037/h0034501>
- Zeanah, C. H., Smyke, A. T., Koga, S. F., Carlson, E., & The Bucharest Early Intervention Project Core Group. (2005). Attachment in Institutionalized and Community Children in Romania. *Child Development*, 76(5), 1015–1028. <http://doi.org/10.1111/j.1467-8624.2005.00894.x>

ANNEXES

Curriculum Vitae

Epaphrodite NSABIMANA

PERSONAL DATA

First name(s) / Surname(s) **Epaphrodite NSABIMANA**
 Mobile +41 76 797 93 99
 E-mail(s) nsabepa@yahoo.fr, epaphrodite.nsabimana@unifr.ch
 Gender Male
 Nationality Rwandan;
 Date of Birth 28.02.1978
 Marital status Married, 3 daughters

WORK EXPERIENCE

Dates	01 March 2016→30 September 2016
Occupation or position held	Assistant Diplômé
Main responsibilities	Teaching: Approches Interculturelles en Psychologie Clinique: Diagnostic et Entretien
Name and address of employer	Université de Fribourg (CH), Department of Psychology
Dates	01 October 2011 → September 2013
Occupation or position held	Head of Program management
Name and address of employer	Hope and Homes for Children, B.P 605 Kigali (Rwanda)
Dates	01 December 2007 - 30 September 2011
Occupation or position held	Head of Psychological Service and Psychologist
Name and address of employer	Hope and Homes for Children, B.P 605 Kigali (Rwanda)
Dates	01/05/2007 - 30/10/2007
Occupation or position held	Psychologist
Name and address of employer	Hope and Homes for Children, B.P 605 Kigali (Rwanda)
Dates	01 May 2007 → October 2011
Occupation or position held	Tutorial assistant (Part time[Weekends])
Main responsibilities	Teaching the course: "Institutions and Practices in Clinical Psychology"
Name and address of employer	Institute of Agriculture, Technology and Education of Kibungo (INATEK)
Dates	01 December 2006 - 01 May 2007
Occupation or position held	Counsellor and data collector
Main responsibilities	Counselling and data collecting, Project of fighting child labour (KURET)
Name and address of employer	World Vision-Rwanda, Kigali (Rwanda)
Dates	01 September 2000 - 30 September 2002

Occupation or position held	Teacher in Primary School
Main responsibilities	Teaching Primary School lessons according to national curriculum
Name and address of employer	Ministry of Education Rwanda, Kigali (Rwanda)
EDUCATION AND TRAINING	
Dates	September 2013→
Title of qualification awarded	PhD Student,
Principal subjects / occupational skills covered	Clinical Psychology
Name of university	University of Fribourg, Switzerland
Dates	2010 - 2012
Title of qualification awarded	Master Of science (Msc)
Principal subjects	Clinical Psychology and Therapeutics
Name of university	National University of Rwanda (University), Huye (Kigali)
Dates	2002 - 2007
Title of qualification awarded	Bachelor's Degree
Principal subjects	Clinical Psychology
Name of University	National University of Rwanda (University), Huye (Rwanda)
Dates	1994 - 2000
Title of qualification awarded	Professional Certificate of Secondary Education A2
Principal subjects	Normale Primaire
Name of school	Ecole de Droit et Adminisatration de Birambo, Karongi (Rwanda)
Dates	1984 - 1991
Title of qualification awarded	Primary School
Name and type of organisation providing education and training	Ecole Primaire de Rwamuramira, Karongi (Rwanda)
LANGUAGE	
	Kinyarwanda (maternal language)
	French (Niveau C1)
	English (Niveau B2)
	Swahili (Niveau B2)

Done at Fribourg, June 05, 2016
NSABIMANA Epaphrodite

Ce formulaire de consentement est pour les personnes adultes invitées à participer à cette recherche. Il comprend deux parties : l'information à la recherche et la déclaration de consentement.

Information aux participants

Titre de la recherche: «Effets du processus d'institutionnalisation des enfants sur leur estime de soi»

Cher (e) participant (e),

Nous vous remercions pour votre intérêt pour ce projet de recherche mené par le Département de Psychologie de l'Université de Fribourg. Voici quelques informations supplémentaires:

1 Sélection des participants

Nous recherchons 200 enfants âgés de 9 à 16 ans vivant en institutions (orphelinat) ou en famille ainsi que leurs parents/curateurs-trices pour participer à cette recherche.

2 Objet de l'étude

La recherche a montré les effets néfastes de l'institutionnalisation sur les enfants. Les conditions de vie, la nature et structure des institutions déterminent le bien-être psychosocial de l'enfant en placement y compris son estime de soi (Browne, 2009; Johnson et al. 2006;). Nous cherchons à améliorer la connaissance sur l'influence du processus d'institutionnalisation des enfants sur leur estime de soi.

3 Informations générales sur cette recherche

- Cette étude s'effectue au Rwanda dans les Districts de Nyarugenge, Kicukiro, Gatsibo, Kamonyi, Karongi et Rubavu. Elle vise à interroger les participants par un bref entretien puis par questionnaires auto-rapportés.
- L'étude se fait sur 3 ans. Chaque année les chercheurs rencontrent les participants une fois. Chaque fois, il y aura une comparaison entre les réponses des enfants vivant en institution (orphelinat) et ceux vivant en famille.
- Cette étude est réalisée conformément à la législation suisse, rwandaises et aux directives reconnues au niveau international. Elle a par ailleurs été approuvée par la Commission interne d'éthiques de l'Université de Fribourg en Suisse et la Comité National d'Ethique au Rwanda.

4 Caractère volontaire de la participation

La participation à cette étude est volontaire. Renoncer à y prendre part n'aura aucune incidence sur vous. Le même principe s'applique en cas de révocation de votre consentement initial. Vous pouvez donc renoncer en tout temps à votre participation. Vous n'êtes tenu(e) de justifier ni la révocation de votre consentement ni un désistement éventuel. En cas de révocation, les données recueillies jusqu'alors continueront toutefois à être utilisées. L'investigateur peut exclure un participant à tout moment de l'essai clinique dans l'intérêt de sa santé ou au cas d'autres circonstances liées à l'étude.

5 Déroulement de l'étude

Une entrevue a lieu dans les locaux de l'école ou de l'institution (orphelinat) afin de donner plus d'informations sur l'étude et son déroulement. Si la personne accepte de participer, elle signe un consentement éclairé. Un bref entretien sera alors organisé suivi par répondre aux questionnaires auto-rapportés pendant environ 2 heures. Pour les enfants, une courte pause aura lieu après 45 minutes.

Les questionnaires sont en rapport avec l'estime de soi, la qualité de vie, les relations familiales les signes de la santé/maladie mentale.

6 Avantages pour les participants

La participation à cette étude n'offre pas un avantage personnel direct, mais cette participation permet à d'autres personnes de profiter des résultats de cette étude dans le sens de bénéficier dans le futur d'informations et d'applications qui correspondent mieux à leurs besoins.

7 Risques et désagréments

Les questionnaires investiguent la situation personnelle des participants, comme leur estime de soi. De ce fait, des questionnements ou une modulation du vécu affectif peuvent survenir à la lecture du questionnaire. Si ça vous affecte, chaque membre de l'équipe est formé et disposé à vous apporter un soutien d'urgence et décider ensemble si vous continuer ou pas. Si besoin est, vous pouvez être référé aux structures existantes de santé pour une aide beaucoup plus rentable. Un feed-back est proposé à chaque participant qui le souhaite afin d'éclairer les résultats de l'étude de manière objective.

8 Confidentialité des données

Les données personnelles recueillies pendant l'étude seront rendues anonymes et ne sont accessibles qu'à des spécialistes à des fins d'analyse scientifique. Les données personnelles ne seront transmises que sous une forme anonyme à des institutions externes à des fins de recherche. Les spécialistes compétents (le cas échéant : du mandataire de l'étude, des autorités et de la Commission d'éthique) peuvent consulter les données brutes, afin de procéder à des examens et à des contrôles, à condition toutefois que leur confidentialité soit strictement assurée. Il est à préciser que leur confidentialité est strictement garantie pendant toute la durée de l'étude et lors des contrôles précités. Votre nom ou autre identifiant pouvant permettre ton identification personnelle ne pourra donc en aucun cas être publié dans des rapports ou des publications qui découleraient de cette recherche.

9 Dédommagement des participants à la recherche

La participation à cet essai clinique ne vous donne droit à aucun dédommagement ni à aucun salaire. Les frais de transport engagés du et au lieu de l'entretien seront remboursés selon le besoin. (Le remboursement est pour les parents qui accompagnent les enfants et non pour les enfants).

10 Interlocuteur(s)

Pour vous inscrire ou si vous avez besoin de plus d'informations sur l'étude, en cas d'incertitude ou de désagrément, vous pouvez vous adresser aux personnes suivantes :

NSABIMANA Epaphrodite

Unité de Psychologie Clinique et de la Santé, Université de Fribourg

Rue P.-A. de Faucigny 2

1700 Fribourg

E-mail: epaphrodite.nsabimana@unifr.ch,

Tel: +41767979399 ou +25078537759

Autres personnes de références

Prof. Dr Chantal Martin Solch, Université de Fribourg, Département de psychologie, rue P.-A. de Faucigny 2, 1700 Fribourg, Tel: +41263007690

Prof. Dr Eugene RUTEMBESA, Université du Rwanda, Campus de Huye, Tel:+250788426866

Déclaration de Consentement (Adultes)

- Veuillez lire attentivement ce formulaire.
- N'hésitez pas à poser des questions si certains aspects vous semblent peu clairs ou si vous souhaitez obtenir des précisions.

Titre de la recherche:	Effets du processus d'institutionnalisation des enfants sur leur estime de soi
Superviseur Principal	Prof. Dr Chantal Martin Solch, Université de Fribourg, Département de psychologie, rue P.-A. de Faucigny 2, 1700 Fribourg, Tel: +41263007690
Superviseur affilié sur terrain	Prof. Dr Eugene RUTEMBESA, Université du Rwanda, Campus de Huye, Tel:+250788426866
Lieu de réalisation de l'étude:	
Investigateur : Nom et prénom :	NSABIMANA Epaphrodite, Université de Fribourg, Département de psychologie, rue P.-A. de Faucigny 2, 1700 Fribourg, Tel: +41767979399 ou +25078537759
Sujet de recherche Nom et prénom Date de naissance <input type="checkbox"/> homme <input type="checkbox"/> femme

- Je déclare avoir été informé(e), oralement et par écrit, par l'investigateur signataire des objectifs et du déroulement de l'étude, des effets présumés, des avantages et des inconvénients possibles ainsi que des risques éventuels.
- Je certifie avoir lu et compris l'information écrite aux sujets de recherche qui m'a été remise sur l'étude précitée. J'ai reçu des réponses satisfaisantes aux questions que j'ai posées en relation avec ma participation à cette recherche. Je conserve l'information écrite aux sujets de recherche et reçois une copie de ma déclaration écrite de consentement.
- J'ai eu suffisamment de temps pour prendre ma décision en mon âme et conscience.
- Je sais que mes données personnelles ne seront transmises que sous une forme anonyme à des institutions externes à des fins de recherche. J'accepte que les spécialistes compétents (**le cas échéant** : du mandataire de l'étude, des autorités et de la Commission d'éthique) puissent consulter mes données brutes, afin de procéder à des examens et à des contrôles, à condition toutefois que leur confidentialité soit strictement assurée.
- Je prends part de façon volontaire à cette recherche. Je peux, à tout moment et sans avoir à fournir de justification, révoquer mon consentement à participer à cette étude.
- L'investigateur peut m'exclure à tout moment de l'essai clinique dans l'intérêt de ma santé ou au cas d'autres raisons liées à l'étude.

Lieu, date	Signature du sujet de recherche
------------	---------------------------------

Attestation de l'investigateur: J'atteste par ma signature avoir expliqué à ce sujet de recherche la nature, l'importance et la portée de l'étude. Je déclare satisfaire à toutes les obligations en relation avec cet essai clinique. Si je devais prendre connaissance, à quelque moment que ce soit durant la réalisation de l'étude, d'informations susceptibles d'influer sur le consentement du sujet de recherche à participer à l'étude, je m'engage à l'en informer immédiatement.

Lieu, date	Signature de l'investigateur
------------	------------------------------

Information sur des difficultés apparaissant lors de l'étude :

☐ Oui, je désire être informé(e) si des difficultés particulières, me concernant ou concernant l'enfant dont je suis responsable sont mises en évidence dans l'étude.

☐ Non, je ne désire pas être informé(e) si des difficultés particulières, me concernant ou concernant l'enfant dont je suis responsable sont mises en évidence dans l'étude

Signature.....

Déclaration de consentement (Parents/Curateurs)

- Veuillez lire attentivement ce formulaire.
- N'hésitez pas à poser des questions si certains aspects vous semblent peu clairs ou si vous souhaitez obtenir des précisions.

Titre de la recherche:	Effets du processus d'institutionnalisation des enfants sur leur estime de soi
Superviseur Principal	Prof. Dr Chantal Martin Solch, Université de Fribourg, Département de psychologie, rue P.-A. de Faucigny 2, 1700 Fribourg, Tel: +41263007690
Superviseur affilié sur terrain	Prof. Dr Eugene RUTEMBESA, Université du Rwanda, Campus de Huye, Tel:+250788426866
Lieu de réalisation de l'étude:	
Investigateur : Nom et prénom :	NSABIMANA Epaphrodite, Université de Fribourg, Département de psychologie, rue P.-A. de Faucigny 2, 1700 Fribourg, Tel: +41767979399 ou +25078537759
Enfant participant à la recherche Nom et prénom ; Date de naissance <input type="checkbox"/> homme <input type="checkbox"/> femme
Parent(s)/Curateur-trice (s): Nom et prénom ; Date de naissance ; Homme/Femme :

On m'a demandé de donner mon consentement pour que mon enfant participe à cette recherche qui lui demandera de répondre à un entretien des questionnaires et discussion en groupe. Je comprends qu'il/elle sera également demandé de donner la permission et que son / ses désirs seront respecté. Je suis conscient qu'il n'y aura aucun bénéfice, ni pour mon enfant ni pour moi personnellement et que nous ne serons pas indemnisés au-delà des frais de déplacement selon le besoin. J'ai reçu le nom d'un chercheur qui peut être facilement contacté avec son numéro de téléphone. J'ai lu les informations ci-dessus, ou il a été lu pour moi. J'ai eu l'occasion de poser des questions à ce sujet et j'ai été satisfait(e) des réponses que j'ai reçues. Je consens volontairement pour mon enfant à participer en tant que participant à cette étude et je comprends que j'ai le droit de le/la retirer de l'étude à tout moment sans pour autant avoir des conséquences négatives ni pour moi ni pour l'enfant.

Noms du parent/Curateur-trice	Relation	Lieu, Date	Signature
.....
...	.	.	
.....

Information sur des difficultés apparaissant lors de l'étude :

☐ Oui, je désire être informé(e) si des difficultés particulières, me concernant ou concernant l'enfant dont je suis responsable sont mises en évidence dans l'étude.

☐ Non, je ne désire pas être informé(e) si des difficultés particulières, me concernant ou concernant l'enfant dont je suis responsable sont mises en évidence dans l'étude

Signature.....

REPUBLIC OF RWANDA/REPUBLIQUE DU RWANDA



NATIONAL ETHICS COMMITTEE / COMITE NATIONAL D'ETHIQUE

Telephone: (250) 2 55 10 78 84

E-mail: info@rnecrwanda.org

Web site: www.rnecrwanda.org

Ministry of Health

P.O. Box. 84

Kigali, Rwanda.

FWA Assurance No. 00001973
IRB 00001497 of IORG0001100

July 18, 2014

No. 194/RNEC/2014

Epaphrodite NSABIMANA
Principal Investigator
(A student)

Your Project title "**Amendment: Effects of institutionalization process on children's self-esteem**" has been evaluated by the Rwanda National Ethics committee.

Name	Institute	Involved in the decision		
		Yes	No (Reason)	
			Absent	Withdrawn from the proceeding
Dr.Jean-Baptiste MAZARATI	Biomedical Services (BIOS)	X		
Prof. Eugène RUTEMBESA	University of Rwanda	X		
Dr.Laetitia NYIRAZINYOYE	University of Rwanda(school of public Health)	X		
Prof.Alexandre LYAMBABAJE	University of Rwanda	X		
Ms.Françoise UWINGABIYE	Lawyer at Musanze	X		
Dr. Egide KAYITARE	University of Rwanda	X		

Sr.Domitilla MUKANTABANA	Kabgayi Nursing and Midwife school	X		
Mr. David K. TUMUSIIME	Kigali Health institute	X		
Dr. Lisine TUYISENGE	Kigali Teaching Hospital		X	
Dr. Claude MUVUNYI	Biomedical Services (BIOS)	X		

After reviewing **amendments** to your protocol during the RNEC meeting of July 12, 2014 where quorum was met, **Continuation of Approval has been granted to your study.**

You are responsible for fulfilling the following requirements:

1. Changes, amendments, and addenda to the protocol or consent form must be submitted to the committee for review and approval, prior to activation of the changes.
2. Only approved consent forms are to be used in the enrollment of participants
3. All consent forms signed by subjects should be retained on file. The RNEC may conduct audits of all study records, and consent documentation may be part of such audits.
4. A continuing review application must be submitted to the RNEC in a timely fashion and before expiry of this approval.
5. Failure to submit a continuing review application will result in termination of the study.
6. Notify the Rwanda National Ethics committee once the study is finished.

Sincerely,



Dr. Jean- Baptiste MAZARATI
Chairperson, Rwanda National Ethics Committee.

C.C.- Hon. Minister of Health.

- The Permanent Secretary, Ministry of Health



University of Rwanda

Office of the Vice Chancellor

Kigali, 02/04/2014

REF: VC.0002/2014

Mr. Epaphrodite Nsabimana
Department of Psychology
Unit of Clinical Psychology
University of Fribourg, Switzerland

Dear Mr. Nsabimana,

RE: Invitation to be a Research Associate at UR

It is my pleasure to inform you that on the advice of the Coordinator of Research Activities at the University of Rwanda (UR), Email: vmasanja@nur.ac.rw, tél: + 250788494984, you are invited to be associated with the UR for the purposes of your research project titled *"Effect of institutionalization process on children's self-esteem"*.

However, this letter serves only to facilitate you to follow up on the research clearance application which you should submit to the Directorate of Science, Technology and Research (DSTR), Ministry of Education. You can start your research in Rwanda under UR affiliation after you submit to us the DSTR certificate for Research Clearance.

Your UR Supervisor during your stay at UR will be Prof. Eugene Rutembesa, Email: erutembesa@nur.ac.rw, Tel.: +250788426866. Please be in contact with Prof. Rutembesa or the UR Research Coordinator for all other logistics and academic matters related to your stay at UR.

I look forward to seeing you at UR.

Yours sincerely,


Pudence Rubingisa
Ag. Vice-Chancellor



C.c:

- Deputy Vice Chancellor (All)
- Principal, College of Medicine and Health Sciences
- Coordinator, UR Research Activities

REPUBLIC OF RWANDA

Kigali, 15.10.2014

N° 111/12.00/2014



MINISTRY OF EDUCATION
P.O.BOX 622 KIGALI

The Head of Rwanda National Ethics Committee
Kigali.

Attn. Prof. Justin Wane

Dear Sir/Madam,

RE: Research Project proposal for Review

I wish to introduce **Mr. NSABIMANA Epaphrodite** to you; he is seeking for a permit to carry out research in Rwanda. Project titled: **“Effects of Institutionalization process on children’s self-esteem”**. As is required by the research regulations, his project proposal requires to be reviewed by the ethics committee. It is in this regard that I am requesting that his project be reviewed among others on your review schedule.

I take this opportunity to thank you for your continued collaboration

Yours sincerely,

MINISTRY OF EDUCATION
GASINGIRWA Marie Christine, PhD
Director General of Science,
Technology & Research
Dr. Marie Christine Gasingirwa
Director General,
Science Technology and Research
Ministry of Education



Cc.

- Hon. Minister of Education
- Hon Minister of State in charge of Primary and Secondary Education
- Hon Minister of State in charge of TVET
- Permanent Secretary, Ministry of Education

Je, Epaphrodite Nsabimana, déclare sur mon honneur que ma thèse est une œuvre personnelle, composée sans concours extérieur non autorisé, et qu'elle n'a pas été présentée devant une autre Faculté

A handwritten signature in blue ink, appearing to be 'Epaphrodite Nsabimana', written in a cursive style.