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**Young people in self-care: behaviours and experiences in farming
households in Kilombero Valley, Tanzania**

Christina Makungu

Thesis submitted for Masters of Arts in Human Geography

Department of Geography

University of Durham

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Abstract

Little previous research has been carried out on children's experiences of taking care of themselves in rural Sub-Saharan Africa due to livelihood demands on parents. The aim of this study was to explore the impact of self-care on the health and well-being of school-aged children who are left unsupervised for several months while their parents are away from the home village to undertake farming activities. The study is situated in the Kilombero Valley in south-eastern Tanzania where parents commonly migrate to distant fields during the farming season. Long distance between villages and farms as well as poverty related reasons are relevant factors in the decision of parents to leave school-aged children behind in the village in order to attend school while they stay at the family farm. A range of qualitative methods including focus group discussions and group exercises (diagramming and timelines), semi-structured in-depth interviews, participant observation and informal interviews were used to collect data in this study. The findings uncovered a range of risky behaviours among school-aged children which are experienced through, and inter-related with, a number of coping strategies. Risky behaviours include sexual activities, delay in health treatment seeking, non-use of mosquito bed nets, missing school classes and meals, and playing outside after dark. Coping strategies such as engaging in sex for food, paid labour and group sleeping are not really adopted through choice but are forced on children as a result of the inter-related nature of poverty, endemic environmental illness and adult household responsibilities. Although self-care arrangements have a number of negative implications for children's health, well-being and education outcomes little has been done to address these issues at the family level, in schools in the community more generally.

Declaration

I Christina Makungu, declare that this thesis is my own work and the material included has not previously been submitted for a degree at this or any other university.

The thesis does not exceed 50,000 words in length.

Statement of Copyright

The copyright of this thesis rests with the author. No quotation from it should be published without prior written consent and information derived from it should be acknowledged.

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Table of Contents

Abstract.....	2
Declaration.....	3
Statement of Copyright.....	4
Acknowledgements.....	5
Table of Contents.....	7
Chapter 1.....	11
Introduction.....	11
1.1 Introduction.....	11
1.2 Research aims and questions.....	14
1.3 Structure of thesis.....	16
Chapter 2.....	17
Learning from the Literature.....	17
2.1 Introduction.....	17
2.2 School-aged children’s roles and responsibilities while they are in self-care.....	19
2.3 Adolescents’ vulnerabilities in the context of sexual behaviour.....	24
2.4 Malaria in school-aged children.....	30
2.4.1 Malaria risk behaviours.....	31
2.4.2 Malaria treatment.....	33
2.5 Summary.....	35
Chapter 3.....	37
Researching-self-care in two villages: methodology and study area.....	37
3.1 Introduction.....	37
3.2 The study area.....	39

3.3.1 Rationale for chosen methods	46
3.3.2 Focus group discussions.....	46
3.3.3 In-depth one-to-one interviews	49
3.3.4 Informal interviews.....	51
3.3.5 Participatory diagramming: timeline activities and spider diagrams	52
3.3.6 Participant observation.....	55
3.3.7 Research diary.....	56
3.4 Researcher positionality	57
3.4.1 Building relationships with children	58
3.4.2 Being an ex-researcher in the study area.....	59
3.4.3 Being familiar with the study setting	61
3.5 Data analysis	62
3.6 Participant recruitment and ethical considerations	67
3.7 Chapter summary	71
Chapter 4: Children’s household roles and responsibilities	73
4.1 Introduction.....	73
4.2 Children’s household roles and responsibilities when in self-care.	75
4.3 Household roles and responsibilities, and schooling	86
4.4 Children’s perceptions of undertaking household responsibilities	92
4.5 Summary of key findings.....	94
Chapter 5: Children’s vulnerability to sexual behaviour	96
5.1 Introduction.....	96
5.2 Freedom, spaces, games and sexual behaviours	97
5.3 Food insecurity and survival sex.....	102
5.4 Sleeping arrangements	108

5.5 Summary of key findings	111
Chapter 6: Children’s vulnerability to malaria	113
6.1 Introduction.....	113
6.2 Non-usage of the bed-net	114
6.3 Children’s outdoor activities during dusk times	118
6.4 Delays in seeking treatment	119
6.5 Summary of key findings	121
Chapter 7	123
Conclusions.....	123
7.1 Introduction.....	123
7.2 Summary of the study	123
7.3 Making links to poverty	124
7.4 Integrating the three empirical themes.....	128
7.5 Conclusion	130
8.0 Bibliography	132
9.0 Appendices.....	147

List of Figures and Tables

Table 1: An example of charts which were created to present themes	66
Table 2: Overview of the socio-characteristics of the children participants	70
Table 3: Children’s roles and responsibilities while in self-care.....	77
Figure 1: Location of Kilombero valley.....	40
Figure 2: Location of Iragua and Kidugalo villages in Ulanga District.....	41
Figure 3: Figure 3 Interviewer with girls during a focus group discussion in Iragua primary school	49
Figure 4: Timeline activity, Iragua school boys	54
Figure 5: Extract from my research diary	57
Figure 6: Data analysis process	64
Figure 7: Daily Activities performed by girls in Iragua village in the absence of their parents	77
Figure 8 : Daily Activities performed by boys in Iragua village in the absence of their parents..	78
Figure 9: Daily activities performed by children when their parents are in the villages	86

Chapter 1

Introduction

1.1 Introduction

Arranging care for school-aged children poses a number of challenges for farming families in southern Tanzania. Livelihood demands lead to seasonal movement of parents from their main village residences to farming sites and stays for extended periods of time at temporary shelters. Whilst pre-school children accompany parents at these times, some school aged children are left behind in villages without adult supervision. The main focus of the present study was to understand older children's experiences of self-care and its implications for their health and well being. This chapter sets out the aims of the study and outlines the research questions in section 1.2. Section 1.3 offers a brief introduction with regard to the study area and methodology, and introduces the key themes used in the analysis. The last section outlines the structure of the subsequent chapters of this thesis. Before outlining the study aims and research questions, I will begin by providing a brief personal explanation of how child care became a research area of interest to me before briefly situating this thesis in relation to existing work in geography and the wider social sciences.

I lived in one of the study villages in Kilombero valley, southern Tanzania from 1985 when my mother, who was employed as an agricultural field officer, was transferred from Dar es Salaam. I remember some of the children in our school were staying alone in the village when their parents were away for farming activities. One common behaviour among these children was truancy and on several occasions we were asked by teachers to find them around the village and

bring them to school in order to attend classes. For us it was a great leisure activity, walking around the village, rivers and hills trying to find our fellow students and return them to school. As I remember, most of the time we found them playing around the village in the bushes and along the rivers but also sometimes in beer halls (see Chapter 3). These children often had dirty school uniforms, lacked the school's requirements such as exercise books and pens and normally spent their mid-day break in school while other students returned home for lunch. It was common to hear villagers in conversation, expressing their dissatisfaction in relation to self-care amongst school children and this type of arrangement was associated by villagers with the development of anti-social behaviours among school children. Although I spent much less of my time in this village when I was attending secondary school and University, children who were in self-care remained an important issue and my question was 'how do they manage to stay alone in the village for extended periods of time without their parents?'

In 2008 I was appointed as a Research Assistant on an international research project based at Ifakara Health Institute in the Kilombero valley with Durham University as the leading institution on the project. The research, which was funded by the USA National Institutes of Health, explored natural resource management and health inequalities (Dunn 2010). Although this project did not set out to explore issues of self-care amongst older children, this emerged as an important element of parents managing their livelihoods under diminishing natural resources and, along with a significant research gap in this area, was deemed worthy of further investigation.

Most studies of children who are left at home alone have been conducted in the global North particularly in the USA (Dwyer et al. 1990, Leung et al. 1996, Aizer 2004). These studies focus on children who are without direct adult supervision for some portion of the day, mostly before

and after school hours. Much existing research on children left at home in self-care situations in sub-Saharan Africa has tended to focus on the experiences of HIV/AIDS orphans (Blerk Van et al. 2008, Abebe 2010, Evans 2010) some of whom are being forced to head families after the death of parents. In contrast, the present research explores the lived experiences of children in self-care in the specific context of livelihood demands which are placed on parents to supply basic needs. Blerk Van et al (2008), Abebe (2010) and Evans, R (2010)'s studies on self-care arrangements among HIV/AIDS orphans suggest that the burden of care and household chores have further impacts on children's future livelihoods through disruptions to, or withdrawal from, school education. Moreover these studies suggest that these children are exposed to sexual activities and are vulnerable to sexually transmitted diseases including HIV/AIDS (Lugalla and Mbwambo 1999).

Themes relating to children's experiences of living in self-care in sub Saharan Africa deserve more attention in the literature since, particularly in the context of links to livelihoods, this remains an under-researched area. The present study is set to start to address this gap. The implications of school-aged children being left at home alone as a result of parental farming activities have been given little previous attention either in the media or in academic circles despite their potential significance. In the light of this discussion, this study sought to explore the experiences of school-aged children in self-care situations in relation to their health and well-being in the framework of livelihood activities and using a qualitative methodological approach. The importance of such a study is to provide understanding and awareness of the impacts which self-care arrangements can have on farming families and their children. The study is also expected to contribute to the empirical literature on the subject.

1.2 Research aims and questions

The overall aim of this study was to explore the effects of self-care among school-aged children in rural Tanzania on their health and well being. At the outset the study aimed to explore children's household roles and responsibilities, school performance and education, and environmental health, particularly malaria. In addition during the course of empirical data collection, aspects of sexual well being and behavior emerged as important and were therefore explored as part of the research.

The following research questions were addressed:

- What are the roles and responsibilities of children living in situations of self-care?
- How do self-care arrangements affect children's health and well being?
- How does self-care affect children's school performance?
- What coping mechanisms are adopted in relation to food insecurity?
- What are the wider community perceptions of children being left alone unsupervised?

This study focuses on the experiences of school-aged children who are in self-care in two villages, Iragua and Kidugalo, in the Kilombero valley in southern Tanzania, a highly malaria endemic area. These two villages are typically poor rural villages. As in other parts of rural Tanzania, agriculture is the mainstay of the economy and most people in the valley rely on farming activities for their livelihood (Minja et al. 2001). The sector is also characterized by subsistence production and low technology. Most families utilize family labour for farming activities and, as a result, particularly during the wet season, parents often stay for extended

periods of time on their farms, living in temporary shelters while leaving school children behind in the main village residence. Social services including dispensaries and schools are located in village centres while farms (*shambas*) are often located at considerable distances from people's homes in the fertile lower wetlands (Hetzl et al 2008). This settlement pattern, which leads to the distinct seasonal movements of the local farming population, is largely a result of the implementation of villagization policies in Tanzania (see chapter 2). The main farming period, which coincides with the wet season, is also the period which is characterized by food insecurity, high malaria transmission and lack of cash among farmers.

In order to understand children's experiences as well as to elicit the views of teachers, key informants and parents this study adopted a range of qualitative methods including semi-structured one-to-one in-depth interviews, focus group discussions, participatory techniques (diagramming and timelines) and participant observation. The children involved in the study were in school years grade 5-7, aged between 11 and 15 years. Carrying out research with children involves serious consideration of a number of ethical issues as well as researcher positionality and these are considered in detail in the subsequent text. Anonymity was maintained throughout the course of the study, and it should be noted that all the names used in this thesis when referring to all participants (both adults and children) are pseudonyms.

1.3 Structure of thesis

This thesis is divided into 5 chapters. Following this introductory chapter, Chapter 2 sets out the conceptual framework of the study through the review of previous studies on ‘self-care’ and other work which links with the key themes of the research.

Chapter 3 will discuss the methodology and techniques used to collect the empirical data, including the benefits and limitations of each method. The chapter also offers a more detailed discussion of the study area and research participants. Aspects of researcher positionality will also be discussed in this chapter before discussing the key issues relating to data analysis. This chapter is concluded with a discussion of the ethical considerations which are relevant to the study.

Presentation of key findings and thematic discussion will be offered in Chapter 4. The findings will be presented according to themes in three main sections. The first set of findings focus on children’s household roles and responsibilities while in self-care. The second focuses on children’s vulnerability and exposure to sexual behaviors and the third explores aspects of children’s vulnerability to malaria. The final chapter will offer a conclusion. The following chapter presents a review of the literature which is relevant to this study.

Chapter 2

Learning from the Literature

2.1 Introduction

This chapter reviews previous studies relevant to the present research. Due to the limited literature on school aged children who are in self-care in Africa, I have expanded the scope of the literature review to include other available research from a number of countries including those in the global North. Effort was made to review studies relevant according to the themes and research questions (see chapter 1) being addressed by the present study.

Most previous studies of self-care in school-aged children have been conducted in developed countries particularly in the USA where school children in self-care are commonly referred to as ‘latchkey’ children (Long and Long 1983, Cole and Rodman 1987, Dwyer et al. 1990, Leung et al. 1996, Brandom 1999, Kerrobrock and Lewit 1999, Vandel and Shumow 1999). These studies focus on children who are regularly left without adult supervision during a significant portion of the day, most commonly before and after school hours when parents are away. The prevalence of self-care arrangements in the global North is associated with the growing number of women entering the formal labour force (dual income), and single parent families (Long and Long 1983, Leung et al. 1996, Aizer 2004). These studies have uncovered a range of different findings. Some report negative consequences including fear, academic under-achievement, poor behavioural development, ill-health and physical injury (Long and Long 1983, Smith 1984, Dwyer et al. 1990, Leung et al. 1996, Osgood et al. 1996). Some report positive consequences including

learning to be independent and responsible (Leung et al. 1996, Ruiz-Casares 2010). Variations in the reported consequences of self-care arrangements in school children in these countries might reflect the age (maturity) of the child, the amount of time the child is left alone and the nature of the self-care situation.

It has been argued that self-care might be more common in developing countries because of poverty (poor economic and social environment), women entering the formal labour market and limited public self-care programmes (Leung et al. 1996, Ruiz-Casares and Heymann 2009). Other factors such as a high dependency on women's labour in the agricultural sector and the breakdown of extended families may increase the possibility of self-care arrangements in rural areas of sub-Saharan Africa. However, very little is known about the prevalence, characteristics and consequences of self-care arrangements in children in Africa (Ruiz-Casares and Heymann 2009) and self-care in children remains a highly under researched area (Dunn et al. 2011).

The present study was conducted in a rural setting in Tanzania, East Africa to explore the impacts of self-care on school children who are left unsupervised for several months while their parents are away from the home village to undertake farming activities. The study is set to address some of the gaps in our knowledge of the impact of self-care in school-aged children (11-15 years old) in relation to household tasks, sexual behaviour and ill-health, specifically malaria. The nature, setting and social context of self-care in children in the present study and those in the global North are quite different. Although the population is the same (school-aged children), the amount of time children are left unsupervised and the social environments differ. For instance many 'latchkey children' in the global North are supervised via telephone and are expected to check with their parents upon their return. But the present study involves children who are left to take care of themselves for several months at a time when parents are away on

their farms. They are not supervised by means such as telephone although they normally go to meet their parents at the farming sites every week-end. It might also be expected that social networks differ between the global North and South with, in the latter, perhaps greater care and support from extended family members although in the present study this was not found to be straightforward. Although there might be potential differences in the vulnerabilities and risks related to children in self-care in the present study and those in the global North, the latter offer a useful background for the present study.

2.2 School-aged children's roles and responsibilities while they are in self-care

Much existing geographical and other social science research on children's household roles and responsibilities has focused on children whose parents are present in the household. There are relatively few studies which have been conducted on children's roles and responsibilities while they are in self-care in Africa. Furthermore most of these studies have focused either on orphaned children who head families after the death of their parents or children who live alone on the street in urban environments without proper or reliable shelter. In the latter case children have often lost contact with their parents and are commonly known as 'street children'. These children have the roles of fully looking after themselves notably in so far as looking for food and other day-to-day requirements. Because they have no parents to resort to, they are entirely dependent on themselves. In such circumstances most do not attend school and their roles are distinct from those children who form the focus of the present study. Rather these children have the twin responsibilities of attending school and other family responsibilities.

Evans, R (2010) in her study on sibling headed household in Uganda and Tanzania found that elder siblings in the household undertook a range of activities both inside and outside the home. These activities involve income generation activities, household chores, child care, self-care,

household management and community engagement. Most of the activities mentioned in Evans's study also appeared in the current study as will be discussed in chapter 4.

Studies of school going children who are in self-care in the global North show that older children are responsible for a number of domestic tasks such as caring for their younger siblings and housekeeping duties such as washing dishes and preparing food. These duties are generally carried out outside school hours (Smith 1984, Dwyer et al. 1990, Ruiz-Casares 2010). Dwyer et al (1990) revealed how the prevalence of truancy was more common in children who were in self-care than in those who were not. They further discovered that truancy by children in self-care was due to looking after their younger siblings not intended truancy. Ruiz-Casares (2010) in her study in Canada found that children in self-care are fully involved in domestic chores particularly after school hours. In contrast, in my study the children in self-care have the domestic chores fully entrusted to them for prolonged a period which grossly interferes with the school time table.

Many studies of household labour allocation amongst school children indicate that gender and age form important influences on the distribution of household tasks (Colge and Tasker 1982, Steelman and Brody 1985, Goodnow and Delaney 1989, Blair 1992a, Mabala and Kamazima 1995, Mukangara and Koda 1996, Punch 2001b, Admissie 2003, Robson 2004). Gender is particularly relevant for the types and amount of time children spend on housework. Sex-role stereotyping in children's participation in housework is influenced by gender role expectations by parents who assign household tasks according to children's expected future roles as wives and husbands (Blair 1992a, Mabala and Kamazima 1995, Mukangara and Koda 1996, Colcough et al. 2000, Admissie 2003). One study in Tanzania found that gender was a major determinant of childhood household labour allocation and is a particularly integral part of socialisation for girls

since it is preparing them for their future life as wives and mothers (Mabala and Kamazima 1995). The study found that girls were expected to fill the gap left by mothers when they are sick or away travelling by shouldering responsibilities such as cooking, fetching water and firewood, washing and looking after younger siblings, while boys were more likely to perform outside chores. This study also revealed that girls have less time for leisure compared with boys. Mukangara and Koda (1996) found that girls in Tanzania were socialized to be hard workers and roles assigned to them tended to be repetitious (e.g collecting water, washing dishes), the same as their mothers, while boys are socialized to be more mobile and to do more outdoor activities like their fathers. These authors argued that gender role socialization takes place at the family level. Similar findings have been reported for Ethiopia, Guinea and Nigeria where gender role socialization was important particularly for girls in insuring that household skills are properly developed before girls are married (Colcough et al. 2000, Admissie 2003, Robson 2004).

Most studies which adopt a gender perspective, while important, tend to overlook the fact that age and sibling structure also have an impact on the distribution of tasks among children. Studies in both 'poor' and 'rich' countries have pointed to the importance of age and sibling structure in the distribution of housework and they challenge the traditional stereotypical gender roles. A study in rural Bolivia revealed that children's roles accumulate complexity over time, so that as children get older they are more physically capable, socially more responsible and acquire competence through experience and practice to take on certain tasks (Punch 2001b). This finding is consistent with an earlier study in the USA which found that older children participated more often in housework than did younger ones (Colge and Tasker 1982). These authors suggest that the variation of household tasks according to age was influenced by parents either expecting more assistance from older children or being unaware that young children were capable of

performing certain household tasks. In terms of sibling structure, one study in rural Tanzania found that boys who have no sisters carry out almost all of the household tasks despite the fact that those tasks are traditionally perceived as women's work (Mabala and Kamazima 1995). Similar findings have been reported for rural Bolivia (Punch 2001b) and in the USA (Steelman and Brody 1985). The latter study found that parental attitudes towards household division of labour were particularly strongly influenced by sibling structure in households where only children of the same sex are present.

Most published studies focus on the allocation of household tasks and caring responsibilities, and do not consider the implications for children's schooling. Moreover there is a paucity of data in this area particularly for the global South and the present study starts to address this gap in knowledge. One study in the USA shows that truancy appears to be higher among those in self-care than in children who were not in self-care (Dwyer et al. 1990). These authors argued that the reason may reflect the requirements of working parents to retain the child at home for working rather than willful absenteeism. An earlier study in the USA showed how high levels of responsibility for younger children appears to reduce school grades among adolescents (Smith 1984). This study shows how the responsibility of looking after younger siblings drains time and energy away from school work. Studies of the implications of household work amongst all school children in Africa (not necessarily those children in self-care) have also found negative correlations between carrying out household task, productive work and school attendance and performance (Mabala and Kamazima 1995, Koda 2000, Admissie 2003). For example, a study in Tanzania found that attending to housework was responsible for girls arriving late at school, absenteeism, less time for studies and exhaustion (Mabala and Kamazima 1995). A similar finding was reported more recently in rural Ethiopia and Tanzania where household tasks as well

as working on the family farms were found to have negative impacts on children's education through an incompatibility with school attendance (Admissie 2003). However these studies have been conducted in settings where there is parental support for sharing the responsibilities of housework with their children. In contrast, the present study explores children's behaviors, health and well-being where those children are left alone to take care of themselves.

Some previous research has considered the perceptions of school children who undertake household tasks. Robson's (2004) study in Nigeria showed that most of the time children carried out domestic chores, farm work and trade willingly despite limitations of their own agency within the structure of adult authority and surveillance, and social expectations of appropriate age and gender behavior.

In Ruiz-Casares' (2010) Canadian study it was shown that children were regularly engaging in household tasks out of gratitude, and shared responsibilities with a different notion such as 'we live there too' or 'that is what is family is about' to avoid punishment. Smith's (1984) study in the USA showed that adolescents who were given heavy responsibilities for younger siblings felt exploited and became resentful while a study in Tanzania reported that girls were exhausted by the multiple demands both in school and at home and they therefore admitted to 'malingering' as the only way to get any leisure time at all (Mabala and Kamazima 1995). The current study is set to address some of the gap in knowledge relating to children's perceptions of carrying out household tasks when their parents are away, including boys' perceptions of their involvement in 'women's tasks'.

2.3 Adolescents' vulnerabilities in the context of sexual behaviours

The World Health Organization (WHO 1998) defines adolescents as the age group 10-19 years and this definition will be used throughout this study. Adolescence is a transitional period from childhood to adulthood. It has been argued that adolescence is a key period of sexual exploration and development and that individuals begin to consider which sexual behaviors are enjoyable, moral and appropriate for their age group (Collins et al. 2004). Although adolescents are often seen as a relatively healthy group which does not have a heavy burden of disease compared to infants and older adults, there is increasing recognition that adolescents have special health-related vulnerabilities (Dehne and Gabriele 2001). Among major causes of morbidity and mortality in young people are sexual and reproductive ill-health (WHO 1998). However adolescents are increasingly seen as 'a gateway to health' because behavioural patterns acquired during this period tend to last throughout adult life (WHO 1998).

Previous research has shown that adolescent girls engage in risky sexual behaviours for different reasons including seeking fun for pleasure, exchange for money, sexual curiosity, love and affection, pressure (from boys, peers and adult men), desire to have a baby, force and violence and a lack of parental monitoring (Leshabari and Kaaya 1997, Kempadoo and Dunn 2001, Fieldman and Middleman 2002, Olaniyi et al. 2007, Wamoyi et al. 2010). Boys are mostly influenced by pleasure, peer pressure, esteem of sexual experience and confirmation of masculinity, alcohol and drug use, less parental supervision and economic gains from older females (Klavs et al. 2006, Wight et al. 2006, Olaniyi et al. 2007, Rupatsisikira et al. 2007). The literature further indicates that adolescent sexual activity is more likely to be associated with unprotected sex, multiple partners, and differences in power balance, putting them at risk of sexually transmitted infections (STIs) including HIV/AIDS (Leshabari and Kaaya 1997, Lugalla

and Mbwambo 1999, Luke 2003, Longfield et al. 2004, Roche et al. 2005, Olaniyi et al. 2007).

In addition to health-related consequences the literature also shows that social consequences of sexual activity in this age group can be substantial for girls including unplanned pregnancy and child rearing, abandonment by partners and inability to complete school (Mgalla et al. 1998, Roche et al. 2005, Olaniyi et al. 2007).

The literature on sexual behaviours among adolescents shows that those who are in self-care situations are more likely to be engaged in sexual activities or sexual abuse than children who are under parental supervision. The main argument made is that economic needs and freedom influence sexual behaviours among adolescents. A very few studies also show that sleeping arrangements, particularly group sleeping, can also influence sexual behaviours among adolescent children who are in self-care (Anarfi 1997, Lugalla and Mbwambo 1999). Lack of parental supervision during leisure time and during petty cash trade activities have also been reported to have increased potential risk of sexual behaviours among school going children in Tanzania (Leshabari and Kaaya 1997) while a more recent study in Kenya of the prevalence of sexual intercourse among school going adolescents showed that parental supervision was a protective factor among female respondents (Rupatsisikira et al. 2007). Thus adolescents who reported having minimal or no sex also reported being supervised by parents most of their time. Similarly, in the global North the main factor associated with early first heterosexual intercourse among boys in Slovenia was less parental supervision (Klavs et al. 2006) while Roche et al 's (2005) study in the USA showed that adolescents who were in self-care were more vulnerable to early sexual initiation in out-of-school hours than children who remained at home with adults. These explanations emphasize that less parental supervision increased the risk among adolescents of engaging in risky sexual behaviors. The main difference between the

present study and these studies is the period during which adolescents are under supervision. The existing literature focuses on the impact of parental supervision for relatively short periods (e.g. out-of-school hours, during leisure time) while the present study has been conducted in a context where adolescents are left on their own for several months at a time.

There is a body of literature which suggests that adolescent girls living with limited or no support from their parents such as street children, displaced children and children from low income families are particularly vulnerable to risky sexual behaviors. Previous research in Tanzania and Ghana shows that street children who live alone or who are otherwise unsupervised in urban areas were vulnerable or at higher risk of physical and sexual abuse for several reasons; the need to perform survival sex due to economic demands, emotional rewards for security/safeness purposes particularly at night and freedom to practice sex because of lack of parental supervision (Anarfi 1997, Lugalla and Mbwambo 1999). Lugalla et al (1999) and Anarfi (1997) studies further revealed that while street boys were managing their day-to-day basic needs including food by working informally during the day as car-parking boys, vehicle security guards, car washers or baggage loaders some adolescent girls were selling sex in order to survive. Sleeping arrangements as coping strategies against certain kinds of violence also emerged as an important aspect which exposes older girls to sexual behaviors in these studies. Some girls admitted having sexual relations with street boys or security guards who provided them with security during the night. Similarly a study on displaced children due to war in Africa shows that children who were separated from their parents were exposed to the risk of transactional sex as a means of survival to obtain food and other basic needs (Albertyn et al. 2003).

Studies in East Africa countries Kenya and Tanzania have shown how girls (not in self-care), particularly those from low income families, engage in sexual behaviors for material gains to meet economic needs (Nyanzi et al. 2001, Longfield et al. 2004, Wight et al. 2006, Wamoyi et al. 2010). These studies show that most of the time young girls engage in such relationship with older men who provide money or gift in exchange for sex. Longfield et al's work in Kenya revealed that, young women's primary incentive to engage in cross-generational sexual relationships is financial, in order to secure funds to cover educational-related expenses that parents cannot afford, such as uniforms, fees and books. They noted older men recognize young women financial vulnerability and intentionally pursue them by using their financial power to bribe young women with money and gifts. Thus men economic power allows them to cultivate sexual relationships with women. They also found that sex gratification appeared to have great influence on men to engage in such relationships. They noted that men feels that they are more sexually satisfied with young women than older women such as wives because of physical characteristics specific to young men that men find attractive and also uncommon to older women such as firm breast.

Other reasons for men to engage in such relationship mentioned in this study include low cost in maintaining relationship with young women than partners of their own age because young women are satisfied with simple gifts than older women. Other reasons include less risky on acquiring HIV/AIDS and other related diseases. Their study also noted social motivation particular peer pressure has significant motivation for young women to engage in cross-generational relationships. Thus young women can be engage in cross-generational relationships not only to impress their peers with gifts but also to fit in the group particular when their friend

also are involved in such relationship. They also noted that pressure to participate in sexual relationships from men also has influence to women even if a woman was not interested.

Their study also noted the high risk of HIV/AIDS exposure in cross generation sexual relationships due to inability of young women to negotiate on safe sex due to cultural and financial reasons as men employ their dominant position in relationships to refusing to use condoms. On the other hand, this study noted there is low risk perceptions among young men and older men in sexual relationships as older men believe that young partners lack sexual experience and have had few partners while young women believe that older men can remain faithful to their wives and young partners. Moreover, their findings show that while parents and other adults' people disapprove cross-generational relationships but do not actively discourage such relationships by accepting money and gift without questioning particular in times of need. As mentioned above, likewise a study in rural northern Tanzania Wight et al. (2006) showed that despite restrictive social norms on pupils' sexuality, sex for young women seems to be regarded as a resource to be exploited for material benefit, such as gifts and money, particularly in non-marital relationships. This study found that very poor young women often use their earnings from transactional sex for essential needs such as soap and sometimes to support their family. The study argued that transactional sex was reinforced by the norm of reciprocity. A more recent study in rural Tanzania found that material exchange for sex was very common and that it underlay most non-marital relationships (Wamoyi et al. 2010). The study found that young women actively used their sexuality as an economic resource. The main arguments from these studies are transactional sex particular in a cross- generational a relationship is influenced by financial demands due to financial vulnerability in the poverty environment among young girls.

The findings from my study also indicate that cross- generational sexual relationships due to economic needs on the part of school-aged children are very common in particular while they are in self-care. Moreover social motivation such as peer pressure and young boys' pressure to young girls to participate in sexual relationships also appeared to have significant influence to sexual behaviours on children particular when in group sleeping. Moreover the reported pregnancy incidences in my study indicates that there is little consideration practicing safe sex such as the use of condoms, and this is the risky environment for sexually transmitted disease including HIV/AIDS. The subtle acceptance on young girls' sexual behaviours also had been revealed in my study as will be discussed in chapter 5.

Nyanzi et al's study in Uganda on adolescence sexuality, both girls and boys demonstrate that money play important role in negotiating on bargaining sexual relationships between boy and girls. In this study, boys reported to have sex with girls which they have had given money and claimed that without using money the chance to have sex with girls would not be there. Poverty driven reasons also play a great part in girls' vulnerability to sexual behaviours with boys as most parents are not unable to provide enough food, clothing and pocket money and adolescent's felt needs such as underwear and cosmetics. This study also found that due to social- cultural division of labour, boys had more than girls to secure money from odds job time to work including digging, growing crops, rearing poultry and animals, fetching water and firewood in the villages outside school hours to earn money to maintain their relationships. While girls' spend after school hours time in doing domestic tasks at home. Other related reasons for having sexual relationships in this study also were sexual pressure, peer pressure and experimentation. With all other reasons which may expose school -aged children in sexual behaviours such as

poverty, peer pressure, curiosity and experimentation, my study found that lack of parental supervision increase their vulnerability to sexual behaviours.

Many existing studies focus on adolescents' health risk behaviours as this age group is most vulnerable to sexual behaviours and its consequences, including sexually transmitted diseases including HIV/AIDS. Much less is known about risk behaviours associated with malaria amongst school-aged children because of the heavier burden of disease in younger children although the disease also has negative impacts on their health and school performance. The present study sought out to explore this gap and the following section presents literature on malaria risk behaviors among adolescents.

2. 4 Malaria in school-aged children

As noted above, despite the burden which malaria poses to school-aged children, malaria infection in adolescents is an under-recognized problem and this group is rarely targeted for malaria control (Lalloo et al. 2006). The problem has been largely overshadowed by the huge burden of disease in younger children and also the increased attention of the burden of HIV/AIDS to this age group. In malaria endemic areas illness and death due to malaria are concentrated in pre-school-aged children, and therefore most epidemiological and social science studies have focused on this age group (Brooker et al. 2000, Lalloo et al. 2006). Although the burden of disease and mortality is far less in adolescents than in pre-school children, studies show that malaria is still a significant problem in school-aged children even in areas of stable transmission (Magnussen et al. 2001, Lalloo et al. 2006). Previous studies on malaria in school-aged children have largely focused on the burden and consequences in this age group, knowledge and prevention practices, and programmes for improving access to early diagnosis in schools (Magnussen et al. 2001, Pasha et al. 2003, Afenyafu et al. 2005, Lalloo et al. 2006, Brooker et al.

2008, Udonwa et al. 2010). But for health risk behaviours in this age group in sub-Saharan Africa there is a much stronger focus on HIV/AIDS, and much less is known about risk behaviours associated with malaria in this age group. This gap in knowledge has been addressed as part of the rationale for this thesis.

2.4.1 Malaria risk behaviours

The World Health Organisation has adopted the use of Insecticide Treated Nets (ITNs) and access to prompt and effective malaria treatment and care as the main strategies for malaria control in the Roll Back Malaria programme (WHO 1999). The effectiveness and protective efficacy of treated bednets in reducing the incidence of malaria has been widely reported and the control programmes have emphasized the notion of ‘scaling up’ bednet coverage. However little is known about the interaction between different factors that influence their use at the household level. Previous studies show that demographic, economic and socio-cultural reasons such as age, sleeping arrangements and perceptions of mosquito density are among the factors which stand out as barriers to bed net use. Changes in normal sleeping arrangements including changes in sleeping place or pattern have been reported by several studies to have an influence in the non-use of bed-nets (Allaii et al. 2003, Frey et al. 2006, Dunn et al. 2011). Allaii et al’s study in Kenya found that children were less likely to use a bed net when they changed their usual sleeping place; for instance when a child visits another compound the bed net may not be taken along or when an adult relative visits a household. A study in Burkina Faso found that changes in usual sleeping places meant that people experienced problems of fixing bed nets in a new place in the hot season (Frey et al. 2006). A recent study in Kilombero valley by Dunn’s et al (2009) found that sleeping arrangements at funeral ceremonies were also associated with the non-use of

the bed-net due to social and cultural norms. In contrast a study in North-east Ghana showed that changes in sleeping place did not hamper bed net use (Gyapong et al. 1996).

Previous studies have shown that age is an important factor in the use and non-use of bed nets, with adolescents being least likely to use bed nets in the household (Tami et al. 2006, Baume and Marin 2008, Wiseman, 2007). Some studies show that the most vulnerable groups in terms of malaria infection (women of reproductive age and children) are most likely to sleep under bed nets compared with other members of the household (Baume, 2008 #87). A study of six African countries found that children aged 5-14 years and adult males were least likely to sleep under a bed net (Baume and Marin 2008). This study also found that when household members sleep in groups, children under five years and women of reproductive age along with a spouse were most likely to sleep under a bed net. In the Gambia research found that the more household members there are between five and nine years of age, the fewer bed nets are owned by the household (Wiseman et al. 2007).

Some research indicates that the use of bed net among rural population is dependent on the perception of mosquito presence and density. Winch et al's (1995) study in Bagamoyo, Eastern Tanzania found that among the reasons for bed net use in this area was the perception of mosquitoes' abundance. It appears in this study that people generally view the risk of disease as being directly proportional to the size of the mosquito population. It was argued that this situation may put the community at more risk of malaria infection because the relatively low densities may be efficient enough to infect people and transmit the parasite among the population.

D'Alessandro et al's (1994) study revealed that high mosquito density was also among important factors influencing bed net ownership in rural Gambia. A nation-wide survey on the ownership and use of bed nets found that their use in the central region was higher than in eastern and western regions. The study found that variation of bed net use between these regions was associated with the presence of rice fields in the central region where the mosquito density was much higher. In the present study, age and perceptions of mosquito densities were associated with non-use of bed nets among school children thus increasing their risk of exposure to mosquito bites. The present study also explores the importance of social activities (e.g. watching television/videos outdoors) and work-related tasks such as collecting water early in the morning and late evening in terms of the ways in which they map onto malaria related risk.

2.4.2 Malaria treatment

Prompt treatment with effective anti-malaria drugs is considered critical in preventing death from malaria (McCombe 2002). The Roll Back Malaria (RBM) partnership set for 2010 a target of ensuring that 80 percent of those suffering from malaria had prompt access to, and were able to correctly use, affordable and appropriate treatment within 24 hours of symptoms onset (RBM 2005). However most African countries are far below these targets, and access to prompt and appropriate treatment is still poor (Hetzl et al. 2007, Zurovac et al. 2007, Zurovac et al. 2008). Most of the literature on the barriers to prompt and effective malaria treatment indicates that key factors are availability of health services and anti-malaria drugs, distance and travel costs, costs of services and acceptability, and socio-cultural aspects (Orbit et al. 2007, Alba et al. 2010, Chuma et al. 2010). There is evidence of children's dependency upon their parents in terms of

illness recognition, treatment seeking decisions, financial provision and adherence to drug dosage (Mwenesi et al. 1995, Mayumana 2007, Franckel and Lalou 2009, Chuma et al. 2010).

Chuma et al's reported that the main barrier for prompt access to effective malaria treatment was affordability in relation to health care services. They found that health care charges, seasonal incomes, transport costs and waiting time all interact to make affordability a major barrier for poor households. In Mayuman's study (2007) in the Kilombero valley most cases of malaria occurring in the families' main houses were treated within 24hrs while episodes in the farm house were treated after three to five days. He identified the factors related to delaying treatment for malaria among people at the main and farm houses. These included the long distances to a source of health care (particular for people who stay in farm house), shortage of drugs and other important medical supplies in government health facilities, lack of means of transport especially bicycle, difficulty in gaining access to money in order to pay for treatment costs, long waiting hours and behaviors and practices of health workers. Alba et al's study in the Kilombero valley found that unavailability of drugs (at health facilities or drugs outlets) was the main barrier to accessing prompt malaria treatment. Distance was also an obstacle for families staying in the field sites but not for those staying in the villages. Their study found that affordability plays a lesser role in prompt access to malaria treatment. These explanations of delay in seeking treatment are important but most studies have not considered the importance of the parents' physical presence and children's dependency upon their parents. The present study therefore seeks to explore lack of parental supervision in terms of its potential implications in this context.

2.5 Summary

The literature on children's household roles and responsibilities indicates that children's labour allocation is highly determined by gender, age and family structure and, to a large extent, mirrors adults' roles. The review of the literature indicates that gender differences in families reflect socialization given to boys and girls from their parents about appropriateness of tasks. Moreover, research indicates that the implications of household tasks and caring responsibilities have negative implications for children's educational development as they often disrupt school attendance, allow less time for studies and promote late arrival at school.

The literature also indicates that economic and social needs are important factors motivating adolescents in low socio-economic circumstances to engage in sexual activity therefore exposing them to sexually transmitted diseases such as HIV/AIDS. The review of the literature indicates that there is limited data on sleeping arrangements as a factor of exposure to sexual behavior among children in self-care. The literature on malaria and school-aged children indicates that less is known of risk behaviors associated with malaria amongst school-aged children because of the heavy burden of disease in younger children. The present study seeks to address these gaps in knowledge. Overall, previous research on children living in self-care situations in rural sub-Saharan Africa is limited. Using the more extensive literature relating to the global North the present study has conceptualized self-care problems in rural southern Tanzania in relation to fear, truancy, roles and responsibilities and poor behavioral development. Drawing on literature from the USA my thinking has been enriched in order to conceptualize self-care amongst children in a different context: that of the rural global South. The literature on transactional sex among school-aged children in difficult circumstances has helped me to explore how such children try to adapt

themselves as a means of coping and survival. Existing literature on malaria risk behaviors among school-aged children is, again, limited and the present study is an attempt in some measure to fill some of this gap in knowledge. In the subsequent chapter, I present the methodology which was adopted in conducting the empirical data collection for this study.

Chapter 3

Researching-self-care in two villages: methodology and study area

3.1 Introduction

This chapter sets out how the empirical data collection for the research was organized and conducted and how the findings were analyzed. It provides a discussion of the methods and techniques which were used to collect the empirical data, including the benefits and limitations of each method. The chapter also offers a more detailed discussion of the study area and research participants. I also examine my own positionality, as well as problems that were encountered and how these were confronted. The chapter is concluded with a discussion of the ethical considerations which are relevant to the study.

This study adopted a qualitative research methodology. This choice was imperative because of the exploratory nature of the research; I needed in-depth views of children's experiences and the wider community's perceptions of self-care arrangements gained through personal encounters rather than quantifiable data collected through statistical survey methods. A qualitative methodology is inherently exploratory and is committed to seeing the social world from the point of view of the actor (Bryman 1984). Qualitative research moves beyond simplistic causal models which are used in many quantitative studies, by developing deep-level, contextually informed and holistic understandings of how and why things happen as they do (Parker 2004). Qualitative interview methods are people oriented, allowing the interviewee to construct their own accounts of their experiences by describing and explaining their lives in their own words,

As researcher Gill Valentine concluded that ‘questionnaire surveys which tend to ask a rigid set of questions which may ‘force’ or push the respondents’ answers into particular categories (Valentine 2005: 110-111).

For example many surveys which have already been conducted on people’s compliance with the usage of bed nets have largely focused on the quantification of bed net usage and sidestep the ways in which health related behavior interplays with the basic needs of everyday life. By using in-depth qualitative methods the present study uncovered a number of circumstances and decision making conditions which underpin the non-usage of bed nets among children who are in self-care when their parents are away for farming activities (see chapter 5).

Alan Bryman argued that ‘Qualitative research is deemed to be much more fluid and flexible than quantitative research, in that it emphasizes the discovery of novel or unanticipated findings...’ (Bryman 1984: 78).

For instance in the present study there have emerged new discoveries related to children’s behavioral attitudes arising as coping strategies related to fear such as sleeping in groups. As will be discussed in chapters 5 and 6, group sleeping has increase self-care children’s exposure to malaria and sexual behaviours. Moreover qualitative research methods allow the researcher directly to engage with participants and experience their environment from the everyday activities and practices of people. This engagement serves the researcher’s objectives to capture perceptions and understandings of how participants make sense of and manage their daily activities (Parker 2004). While conducting this study I stayed in the one of the study villages and participated in important events such as funerals. This gave me the opportunity to immerse

myself in the lives of my participants thus facilitating an exploration of their experiences, views and attitudes relating to self-care arrangements.

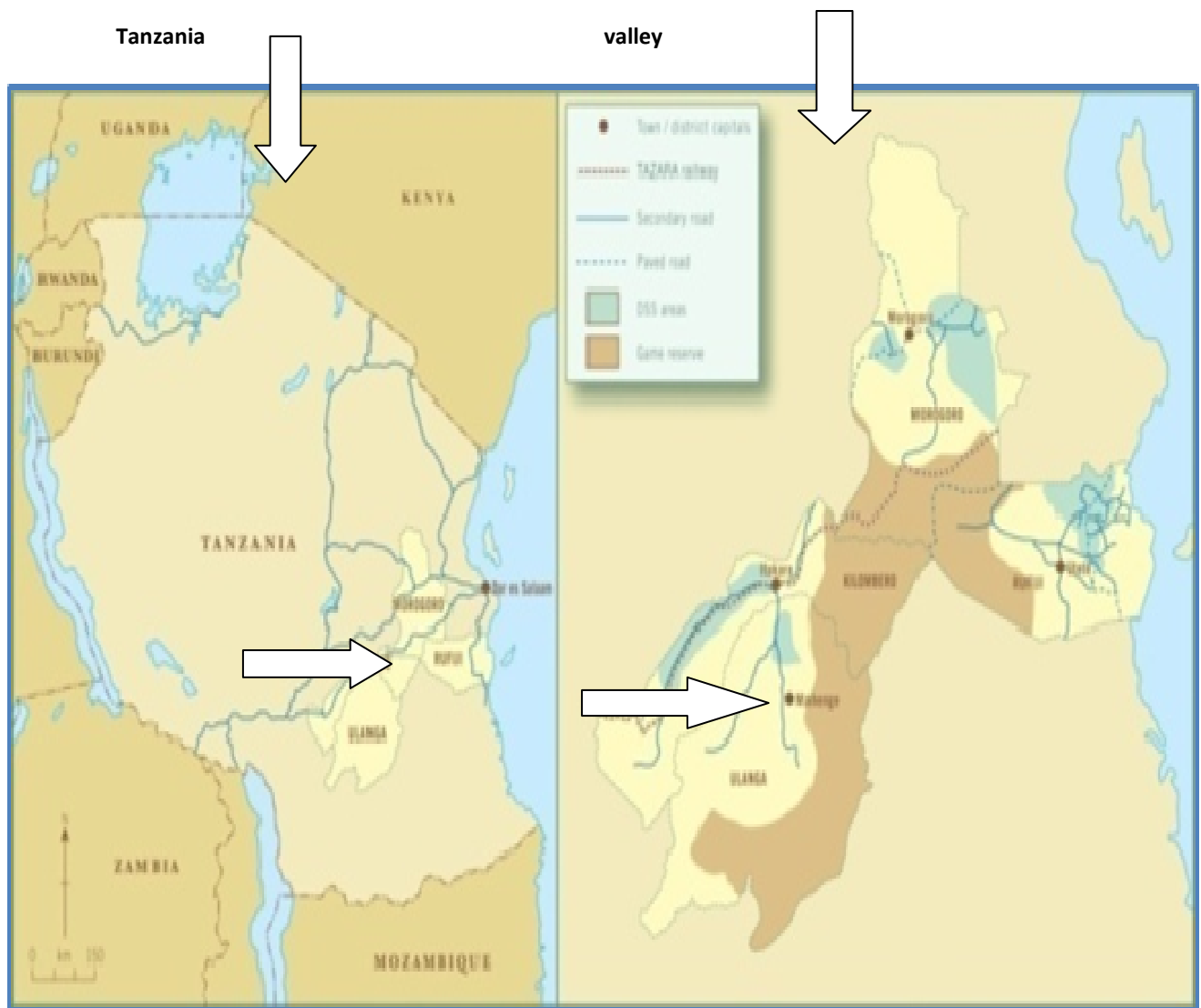
3.2 The study area

Kilombero valley in Southern Tanzania is a broad flood plain formed by the river Kilombero and situated between the Udzungwa and Mahenge highlands. The valley comprises two administrative districts namely Kilombero and Ulanga which are separated by the river. The present study was conducted in Kidugalo and Iragua villages in Ulanga district (Figure 2). These villages are allocated along the main road to the district headquarters (Mahenge). Although these villages are allocated along the main road, yet still they are difficult to access for several months each year particularly during the rainy seasons due to the bad road. Unlike other valley's particularly in Kilombero's villages which has other reliable means of transportation particular railways (Tanzania and Zambia Railway Cooperation), railway service is not available in Ulanga's villages so they solely depend on unpaved road. As noted in chapter 1, Kilombero valley is a highly malaria-endemic area in southern Tanzania. Malaria also is reported by health service and perceived by local people, for both adults and children to be the foremost health problem (Armstrong Schellenburg et al. 2001). 'Malaria infection occurs when female anopheles mosquito, infected with the plasmodium parasite, bite a susceptible human being. There are four types of species of Plasmodium responsible for human malaria infection, namely *P.falciparum*, *P.malariae*, *P.vivax* and *P. avale*. Although *P.vivax* has widest geographical range in many parts of the world, *P. falciparum* is the most common species throughout the tropics, and sub-tropics and may occur in some temperate areas' (Gilles:124). Tanner et al's argued that malaria in Kilombero valley is largely due to *P.falciparum* and the transmission is intense and perennial with a peak during the rainy seasons. There is a number of malaria control interventions, notably

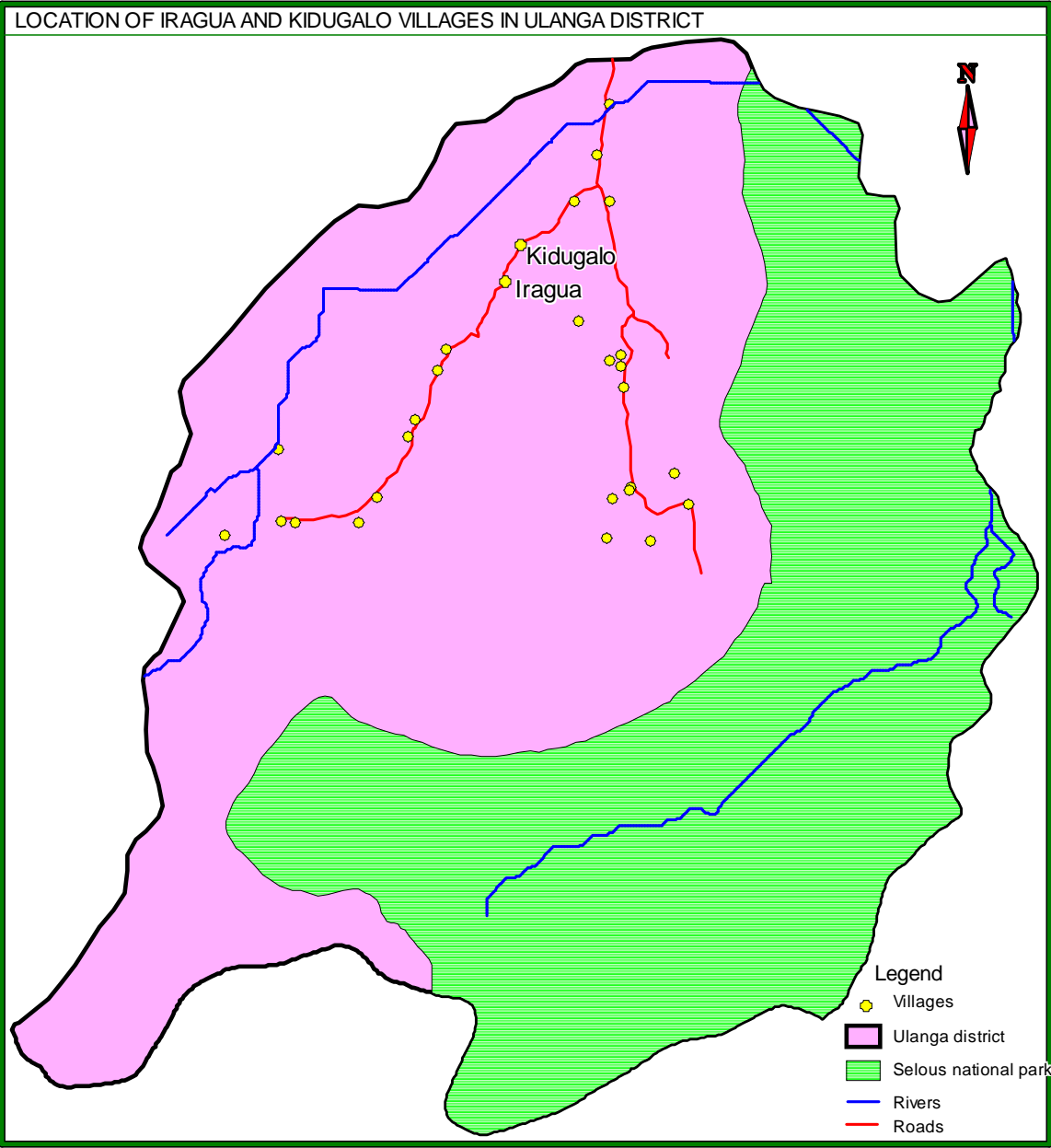
a social marketing programme for insecticide treated-nets KINET. The KINET was implemented with the aim of achieving substantial and suitable use of bed nets, particular for young children and pregnant women.

Figure 1: Location of Kilombero valley in the map of

Location of Ulanga district in the map of Kilombero valley



Source: Dunn et al (n.d)



Scale 1cm=10km

Source: Mwakalinga Victoria, University of the Watwiterstrand (pers.com)

Figure 2: Location of Iragua and Kidugalo villages in Ulanga District

The climate in these villages, as in most other areas of the valley, is highly seasonal with floods during the rainy season. The rain starts in November and ends in May and drought during the dry season lasts from June to October (Minja 2001). From December to April is a period of intensive rainfall with some instance of flooding in the plains. Climatic conditions are suitable for farming activities especially rice and maize other, and most residents rely on subsistence farming for their livelihood, rice being the main cash and food crop in the valley. Other crops produced in this area cassava, vegetable nuts, bananas, sugar-cane and teak's plantations which are largely produces in big plantations. Despite of the suitable climatic condition and fertile soil suitable for agricultural activities, food security is a problem; poor farming technology such the use of hand hoe and highly dependence on rains may influence in this situation. Working in agricultural casual labourers is among the strategies adopted by farming families in coping with food insecurity. Schellenburg et al's (2001) reported that the government and other world organizations such as World Food Programme and CARITAS distributed food aid in Ulanga district during the famine crisis which occurs in 1998 after the two years poor harvesting. Although rice is a predominant economic activity, valley's communities also are involved in other economic activities including fishing as well as livestock rearing. There is a wide mix of ethnic groups with Wandamba and Wapogoro being regarded as the original tribes and with other tribes including Wahehe, Wasukuma, Wabena, Wamaasai, Wambunga and Wamaang'ati to mention only a few.

Due to a lack of artificial irrigation systems in the region, farmers are heavily dependent on the yearly weather patterns. The annual river flooding pattern is utilised by the residents as a form of natural irrigation for rice cultivation (Hetzl et al. 2008). The movement of the farming population from village residence to farming fields normally starts in November and ends

between July and August after harvesting. The large spatial distances between villages and field sites in the study area like other rural areas in the country is a product of the ‘villagization policy’ implemented by the government in the early 1970s. This policy changed rural settlement patterns by bringing scattered farm homesteads into more organized villages for communal living and production (McCall 1987, Ellis and Mdoe 2003, Isinika et al. 2003). In the present study area people were brought from scattered remote households along the margins of the Kilombero river to new villages situated along the main road where all social services including schools, dispensaries, roads, churches, and mosques were located (Minja 2001, Kangalawe and Liwenga 2005). The government assumed that farmers would prepare new fields closer to their new homes and that many villages would demarcate individual plots (McCall 1987) but in Kilombero studies show that immediately after settling in the respective villages, most families continued to cultivate in the lower wetland because of favorable soil fertility and moisture conditions for rice cultivation (Kangalawe and Liwenga 2005). Therefore field sites need to be accessed either by walking long distances and wading through water (Hetzl et al. 2008) or by using bicycles Dunn et al. McCall (1987) argued that the salient effect of villagization was to locate farmers farther from existing fields, thus reducing their ‘effective working day’, i.e. time available for field labour. Recent work in Kilombero valley Dunn et al’s shows that many people find it impractical to walk back and forth to their farming site every day. And therefore parents accompanied with pre-school children and older children who are not yet married stay for extended periods of time on the farms in temporary shelters while leaving school-aged children unsupervised in villages (Futoshi 2007, Hetzel et al. 2008). Other factors which increase this movement and long stays at farming sites are shortage of land close to the village due to population increases, crop guarding against damage by cattle and wild animals, and poverty

which leads to high dependence on family labour (e.g. use of hand hoes) due to lack of money to access agricultural resources such as tractors, pesticides and employing non-family labour during weeding and harvesting.

The choice of these two villages based on the fact Iragua and Kidugalo villages are among the villages with highly population mobility due to the farming activities because of the long distance between farms and village home. Two villages were selected during proposal writing, Kidugalo and Namhanga villages. Apart of being aware that self-care arrangements were practices in these two villages as I was familiar with it when doing research in this area (see chapter 1), another important reason was the familiarity and trust gained from village leaders, teachers, and other villagers. Self-care is a sensitive topic, so being familiar with the environment and people was important. But during data collection I found that there were very few houses which were practicing self-care in Namhanga villages compared with other villages in Iragua ward. When asking about the reasons from Namhanga's primary school teachers, village and ward leaders they said it is because farms are not that far if compared with farms in the rest of villages in Iragua ward. Therefore parents normally move with their school-aged children to stay in farms, so school-children have to walk everyday to come to school. This arrangement was mentioned to expose largely young girls into sexual abuse such as raping when walking back and forth as well as late arrival at school. Namhanga and Kidulago teachers and ward leaders suggested to me to do self-care study in Iragua village instead of Namhanga. Apart from given reasons that Iragua village was ideal because self-care is common than in Namhanga, they also pointed out other interesting reasons such as high incidence of pregnancy in Iragua which they directly associate with self-care arrangements. This was also confirmed in one-to-one interviews with Iragua and Kidugalo teachers that, pregnancy incidences are high in their school

compared with Namhanga village. The difference coping with the distance between farms and villages may suggest that self-care arrangements are not common in all villages in Kilombero valley. Unlike other studies in Kilombero valley such as Hetzel et al's (2008) and Futoshi (2007) which provide general reported that farming population movements to the field sites and school-aged children are left alone in the villages while other villages such as Namhanga where by Although parents live in farms, children are not left alone in the villages instead they move with their parents.

3.3 Data collection

During the period of data collection I lived in Kidugalo village so as to get as close as possible to my research participants and to better understand their everyday experiences. Data collection was carried out for 21 days using four main qualitative methods: focus group discussions; one-to-one semi-structured in-depth interviews, participatory diagramming and participant observation. The use of multiple methods in this way to research children's experiences is valuable in terms of gaining a deeper understanding that does not merely duplicate data, but also offers complementary insights and understandings that may be difficult to access though reliance on a single methods of data collection (Punch 2002b, Darbyshire et al. 2005, Hemming 2008). Thematic topic guides were developed and these served as a primary reference during the interviews and focus groups. It was also important to meet with village leaders and school teachers separately and have discussion on the aims of the study and the proposed methods as well as to seek permission for to recruit participants and to make arrangements for data collection.

3.3.1 Rationale for chosen methods

This section highlights the key reasons for the research methods deployed and also outlines some of the main strengths and limitations of these methods.

3.3.2 Focus group discussions

Focus group discussions have continued to make a significant methodological contribution to geographical research for investigating complex behaviors, opinions and emotions and for eliciting a diversity of experiences (Longhurst 2003). In its basic form, Longhurst argued that a focus group is effectively a group discussion usually between 6 and 12 people which focused around a particular topic or theme that has been set by researcher. It has been argued that this method can assist in bringing to the surface aspects of a situation which might not otherwise be exposed and which can stimulate people in making explicit their views, perceptions and motives (Punch 2005). In the present study in which research is based on children living in self-care, issues of some sensitivity were expected at the outset. In order to explore such issues with my participants I felt that it would be more appropriate to use small groups of children rather than depending entirely on one-to-one interviews where children may have felt embarrassed or 'under pressure' to answer challenging questions. Indeed, I subsequently found that the children discussed sexual issues with greater ease in a group discussion than in individual interviews. One key characteristic of focus group discussion which make it different from individual interviews is the interactions and dialogue which occur during the interviews (Longhurst 2003, Conradson 2005).

Longhurst (2003) argued that focus group discussions is useful for exploratory research and enable a researcher to gather the opinions of a large number of participants for comparatively

little time and expense. In this study it was also much easier to invite parents for a group discussion rather than interviewing them separately as this would have entailed visiting scattered and distant shambas, and walking through water and muddy paths which would have been more impractical. Conducting focus group discussions within the villages made the exercise more straightforward as a means of collecting a lot of information and data within a short period of time. I did two focus group discussions with parents, one focus group in each village as well as two focus group discussions with key informants, one group in each village. Each focus group with parents involved 12 participants in each village while the focus group with key informants in Kidugalo village involved 10 participants and 7 participants in Iragua village. Focus group discussions in Kidugalo village took place in the village office while in Iragua village it took place in the classroom in Iragua primary school. Each focus group discussion took between one hour and half to two hours. The participants of focus group discussions with parents were the parents of children who are in self-care who were involved in this study. As I were I also wanted their consents for their children to participate in my study. The selection of key informants was purposive; key informants group comprises elder people who live in these villages for long time (since 1960s- until now), village leaders, religious leaders and influential people such as traditional leaders 'mbui'.

There were four focus groups with children, each of 6-10 participants, in each village, divided according to gender. Gender is important in group discussions and it has been argued that single sex groups can be more successful than mixed ones where boys may talk more, and more loudly, determine the conversation topics and tend to overshadow girls (Mauthner 1997). Being aware of this, girls and boys were separated into different groups in order to enable girls to freely express their experiences and views of self-care. Each focus group discussion with children took

between one hour and one hour and a half. Focus group discussions with children in Kidugalo were took place in the village government office while in Iragua took place in a classroom. All focus group discussions were recorded by the digital recorder. Focus groups enabled children to discuss and articulate in their own words their perceptions, understandings and experiences together. In the present study, groups were interactive and in many cases children were more relaxed and generally comfortable in focus group discussions than in one-to-one research encounters, particularly in relation to issues of sexual behavior. Although focus groups has many advantages and are also useful in generating a range of views from participants as with all research methods there are limitations. It can be difficult to run focus group discussion with certain types of individual dominating discussions (Bedford and Burgess 2001). Particular in sensitive topic, there might be reluctance for some participants to express different views from those which have been expressed by others group members to avoid to be regarded as controversial (Conradson 2005). It is also argued that argued that the presence of ‘others’ may affect individual accounts as some individual may lack confidence to express their views (Gibbs 1997) and I therefore also conducted a series of one-to-one interviews was discussed next.



Figure 3: Interviewer with girls during a focus group discussion in Iragua primary school

3.3.3 In-depth one-to-one interviews

‘Basically there are three types of interviews: structured, unstructured and semi-structured’ (Longhurst: 105) but my focus will be primarily upon semi-structured interviews. Interviews is sensitive and people-oriented, allowing the interviewee to construct their own accounts of their experience by describing and explaining their lives in their own words(Valentine 2005). To support the information gained in the focus group discussion, in-depth one-to one interviews were conducted with 22 older children and 5 school teachers in the two study villages. I did one-to-one interviews with 5 girls and 5 boys in Iragua and 8 girls and 4 boys in Kidugalo. The number of participants in individual interviews decreased because common behavior of non-school attendance among self-care children as will be discussed in the following chapter. I had to make sure that I do interviews with these children because they were also participated in focus

the group discussion and in timeline exercise but sometimes I didn't find them at the school, therefore I had to ask other children to find them around the village.

This method allowed children and teachers to describe and explain their experiences of self-care in their own words without being concerned about the presence of other participants and issues were explored thoroughly. Furthermore some important aspects which were not anticipated emerged in these interviews such as sleeping arrangements among children when parents are away. However during the interviews some children were reluctant to explain their views and therefore were limited in their conversation. It has been argued that in individual interviews children may lack confidence in communicating directly with unfamiliar adults (Mahon and Glendinning 1996, Mauthner 1997, Punch 2002a). In the present study it is possible that the research encounter could have been their first experience of talking with an adult who they did not know well about sensitive issues such as their sexual experiences. In this case, this could have introduced an element of shyness and an atmosphere of unease.

I tried, where appropriate, to use more probing questions to elicit information from children who were less forthcoming while, at the same time, respecting their privacy. In addition, in an effort to help first to develop a rapport with the children and to gain their trust before embarking on more intimate individual research encounters, one-to-one interviews were conducted after the participatory techniques and focus group discussions had taken place. In these interviews, some children were not comfortable particular when discussing sensitive issues particularly on sexuality and school attendance. Some of them did not respond at all with my questions regarding this topic, while most of them were more likely to talk about 'their' friends' sexuality and truancy behaviour. After observing these kinds of response towards sensitive topic I decided to do informal interviews as will be discussed in the next section. One-to-one interviews were

taking place in the school compounds under the trees away from classrooms (most of them were taking place during class hours when classrooms are occupied). I decided to do interviews during class hours after being aware that older children's after school time were full occupied with household's responsibilities. Depend on circumstances some of interviews took place in participants' home after school hours. These interviews normally took between forty minutes to one hour and all interviews were recorded by digital recorder.

3.3.4 Informal interviews

As was discussed in section 3.3.3, Informal interviews were conducted with children particularly where they felt a sense of unease about discussing sensitive issues such as their sexuality in more formal encounters particularly when interviewed by older researcher . Being aware of this, I spent time with these children particular after school hours: accompany them in their daily task such as errands, walk with them from the school to their homes (as I was living very close to the Kidugalo primary school, so I was able to see them going back home after school hours), through household visit I was able to talk with them when they took me half way from their homes, chatting with them in a group away the school compounds. It was difficult to access these children during the week-end because they normally spent week end working in farms. as. Therefore I was forced to use school days both classroom hours (particular during the mid-break) to talk with them either individually or in groups. In this way I came closer to my participants and a social distance between adult researcher and children subject was lessened and thus gradually allowed greater access to their more intimate experience. (Throne 1993). Children were therefore free to discuss their 'own' sexual experiences in self-care situations; as noted earlier in the more formal one-to-one interviews children were more likely to discuss and reflect on 'other' children's sexually related behaviors . For example they were free to talk about how

they manage to get daily food 'posho' and other basic needs by engaging in sexual activities and how and where they spend their time after supper in different games. I was keen to listen more to their stories than to speak or criticize them, or to be shocked with some issues which was seem to be awkward with me for example when one girl told me that she was engaging in sexual practices almost every day when playing hide and seek with different boys. I agree with Houghton et al's that 'when children think that you are a listener, they will initiate conversations with you. If they know you are slow to criticize or difficult to shock, they will talk to you about anything and everything' (Houghton and McColgan 1995:69). I also used this time to cross-check information given to me by others in the one-to-one interviews and in the focus group discussions. Through these conversations, children both girls and boys either in a group or individual were open to telling me on where they meet with their sexual partners for example in the toilets, in the bush when they go to collect water, firewood or 'mboga' or while they play different games at night such as hide and seek. Informal interviews generate rich and detailed information although capturing and recording all of the information provided by participants presents challenges and this was approached here by keeping a research diary (see section 3.3.7).

3.3.5 Participatory diagramming: timeline activities and spider diagrams

3.3.5.1 Timeline activity

The present study used participatory techniques including timelines and diagramming with school- aged children. The same children who participated in focus group discussion participated also in timeline exercise. As noted earlier, participants were divided according to gender, flip chart and marker pens were used. For timeline activities children indicated how they use time

and space when parents are away. Daily activities were indicated by both boys and girls in separate groups to provide valuable information on the work load children have when parents are away and to explore the gendered division of labour in households (Figure 4). These encounters involved discussion and disagreement among the participants for example, when children indicate their activities after supper, some children did not want to mention about their visit to video houses and also to indicate games such as hide and seek game which are normally played after supper., Others disagreed with them and asked them to be honest on their activities during dusk times. To indicate activities and time spend on each activities, children used different symbols s for example drawing a picture of 'plate with food' means a meal time. . These symbols were developed by children themselves through discussions on what will be appropriate a symbol to present an activity. Flip charts and marker pens were used in participatory exercise both timeline and diagramming. Children also use swahili' hours to indicate time used in different activities for example 7.00 in Swahili means 1.00 in English, the use of swahili' hours help them not to take too much time in translating hours rather than concentrating on activities. Moreover the timeline technique was said to enable multiple connections between issues (Pain 2004) . For example in my study children's household roles and responsibilities while in self-care and when their parents are in villages were established and this information was closely linked to the non-school attendance and late coming to school behaviour when they are in self-care compared with when their parents are in the villages. Therefore children's activities and behavior within a particular time and space when in self-care and when they were not in self-care were established. Normally timeline activities took about one hour and a half and were also recorded by digital recorder. The information from this method was very useful in complementing information

given by these children in one-to-one and focus group discussions.



Figure 4: Timeline activity, Iragua school boys

3.3.5.2 Spider diagrams

The same participants from focus group discussions and timeline activities also participated in diagramming activities. Participants were told not to write their names in their paper so as to give them freedom to indicate risky spaces without any fear. During the construction of spider diagrams children were asked to indicate places within and outside their community where they normally like to go during dusk times when parents are away from the village. The aim of this exercise was to discover places both within and outside their community which children inhabit, and what they normally do in these places with other peers and whether visits to these places expose them to specific risk behaviors. Another important question which children were asked was related to reasons for non-school attendance. They were asked to indicate where and what

things they do when they do not attend school. This method didn't only compliment the information given from other methods but also new information about risk places emerged. For instance children actively indicated spaces such as beer clubs and bushes (during school hours) and this information was not reported through other methods.

Regarding non-school attendance children indicated reasons such as bush collecting firewood or collecting water. In individual interviews, focus group discussions and in timeline activities, these activities were mentioned to be performed only before or after school hours. After spider diagramming activities, I asked children to explain to me on issues which are not clear.

Both timeline activity and spider diagrams like other research methods have limitations. Firstly, they produce brief and certain type of information. For example in spider diagrams, children were asked to indicate places which they like to visit dusk times; bush, beer clubs were commonly mentioned. This information is brief, I might to understand why they like to visit these places. I did short discussion after each exercise and children as a group, told me what they mean. But it was impossible to get individual answer on why she/he indicates those places as important place.

3.3.6 Participant observation

Participant observations were carried out by living in one of the study villages, Kidugalo, in the research area. The observations were taking place in locations which have some relevance to the research questions for example in the video houses, households. During this period, five households with children living alone were visited in order to observe the relationship between what children do and what children say they do. Observations were also conducted at TV/video shows, beer clubs, and playgrounds at dusk times and in schools (to observe, for example, if

children in self-care normally arrive at school on time). This method allowed me to get close to the participants, and so to better understand them and their relationships among and between people. For instance when I was doing house visits made me to see the division of labour among these children in these households. In these visit, I found older girls cooking, peeling vegetables, and washing clothes etc while their brothers were playing around in the villages. During household visits children were relaxed and comfortable to talk with me about different issues involving self-care life. Moreover it provides an understanding of the worldviews and ways of life from inside, in the context of the participants' everyday and lived experiences (Cook 2005). The information provided by this method was documented as part of my research diary which served to complement that from one-to-one interviews and focus group discussions, thus building a more holistic picture. However there were some limitations to this method. Household visits were time consuming and often interrupted children's activities such as household chores. Furthermore, children did not always appear comfortable when they saw me at the video houses and some left upon seeing me arrive.

3.3.7 Research diary

I used a research diary to record my daily activities and experiences as regards this study particularly on occasions when it proved difficult to record research encounters electronically. Using this diary method I could reflect on my research encounters and plan future activities. The information contained in this diary was then useful during my write-up (Figure 5).

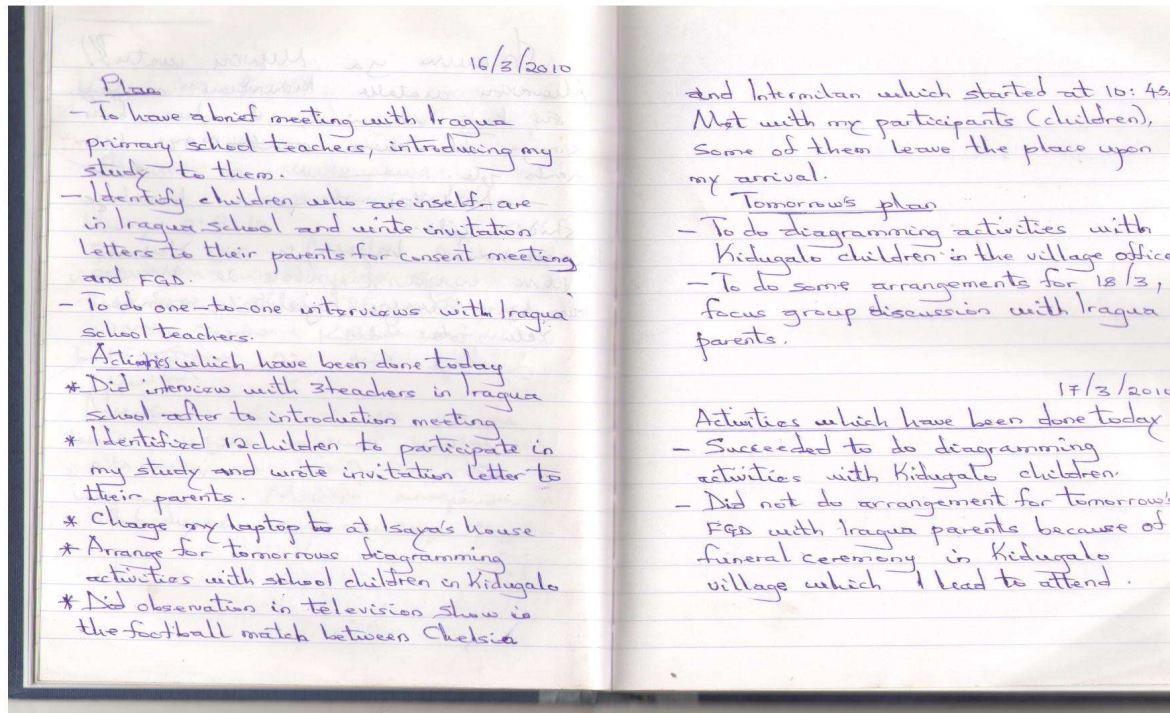


Figure 5: Extract from my research diary

3.4 Researcher positionality

Kim England (1994:82) describe 'reflexivity as a process of self-discovery'. (England 1994).

My identity as a Tanzanian and ex-research assistant (see section 3.4.2) in the geographical area of the study had positive effects in facilitating the development of rapport and gaining trust with participants. Despite the fact that my topic was relatively sensitive, sharing a Tanzanian background and identity with my informants and being known by some key influential people in the villages produced some rich and detailed conversations and participants were not fearful of legal or social consequences.

Valentine (2005) argued that gender, age and marital status are all aspects of the researcher's identity that can influence access to informants. I felt that my gender and age, as well as the fact

that I am a mother, were appropriate for my topic. Being a woman who was researching affairs relating to children, nobody seemed to feel threatened by me which they might have done had I been, for example, an older man doing research on the same topic. In theory, one may think that I was regarded as an insider in the community because I shared a similar identity with my informants as a Tanzanian, and as someone who comes from the same region. However, the position was not straight forward. To a large extent I was regarded as an outsider by villagers, as a middle class woman, and an urbanite who is studying abroad. Therefore I had to reflect on my position when engaged in the research process throughout my study. I had to spend time building trust and relationships with the community especially by managing self-presentation (my appearance and behavior), including showing a lot of courtesy by not passing people without greeting, shaking hands, appreciating their presence and their views and taking part in some community social activities such as funerals. I tried to manage my appearance and dress by not wearing trousers or expensive dresses which would create a distance between me and people in the villages which I was keen to narrow.

3.4.1 Building relationships with children

It is undeniable that the relationship between an adult researcher and a child participant involves power relations not only due to the gap in age and difference in bodily size but also in status in society (Matthew et al. 1998). My initial task was to build good relationships with children as a friend, an adult and a researcher throughout my engagement with them in my study. This was not straightforward, since I was introduced to them by their school-teachers. Developing too close a relationship with teachers may have generated concerns amongst the children, for example, thinking that I may be disclosing aspects of their lives to adults.

Therefore I had to gain the children's trust by building good relationships with them and trying to keep a sense of distance with their teachers. This was sometimes difficult because teachers wanted to look after me and to be close to me by walking around together and chatting. I spent most of my time in the field with children, walking with them, observing what tasks and activities they did, games they played and listening to their stories, respecting their views, encouraging openness and being flexible to their wishes and preferences. It did not take long to form a good relationship of mutual trust with them. Children soon became relaxed with me, starting to call me 'researcher' and not 'teacher' as they did in the first few days of my fieldwork. They began to open up their social world sharing with me their experiences of self-care.

I was particularly aware of social norms which guide children and adults when in conversation. For instance looking down or avoiding eye contact in conversations between children and adults is a symbol of respect from children towards adults. Another important cultural aspect to be aware of was in discussions involving sexual experiences with children. It was expected that children would feel uncomfortable and hesitant about talking with an 'older woman' and a 'newcomer' about their sexual experiences. Young people tend to be more at ease discussing sexually related issues with peers than with adults. In addition, in Tanzania topics related to sex are regarded as sensitive and taboo; not something to be discussed openly between adults and children (unless during special occasions such as ritual ceremonies).

3.4.2 Being an ex-researcher in the study area

Before commencing my MA study in Durham in September 2009, I worked as a Research Assistant in the health institution which carries out a Demographic Surveillance System (DSS) in the study villages (Ifakara Health Institute). In each DSS village, there is a team of data

collectors and a supervisor who collect routine demographic data from each household every four months. Although I was not working with the DSS project, Ifakara Health Institute was a collaborating partner on my earlier research project. This association had some positive effects as discussed above but also had negative impacts. For instance it was difficult for villagers not to associate me with the practices and impacts of other researchers who had worked in the villages. For example, I had a particularly difficult experience following the death of one villager who was a participant in another study and who died in a car accident when she was on her way to attend a research session at Ifakara Health Institute. I attended the funeral, and people expressed their anger and dissatisfaction, asking me questions such as ‘when will you (Ifakara Health Institute) stop killing us because of your research...for your own benefit?’ and ‘do you think you will be able to continue doing research in our village after killing this woman?’ I had to be patient and answer their questions politely. Although I made it clear before starting my study that I was now a student and no longer working with the health institute, it was still hard for people to understand these complexities. Rather, I was connected to the event and this had an impact on how people saw me. After seeking advice of respected people in the village I was advised to withdraw from data collection for a while so that the situation could become calmer. I accepted their advice and resumed field work after a week. This event didn’t affect my research in this area as I was worried before. I conducted one-to-one interviews and spider diagramming with children and conducted a key informants’ interviews which involve village leaders, influential people and elders in this village after this event but there was no any changes in term relationship between me and my participants. And no one asked me anything about the death of the villager before interviews, during interviews and after interviews. One reason may be influence this response; the way Ifakara Health Institute handled this event. For example the staff attended the

funeral ceremony and institute incurred all costs regarding funeral ceremony; conducted a meeting with villagers and talk about the issue after funeral; also provide some assistance to children and other relatives.

As noted in chapters 1, 4, and 5, the rainy season is concede with food shortage and money scarcity particular between February and May before maize harvesting. Data collection activities took place during this period also; this may have some implication in the data which I have collected. Some issues are might be over or under reported .I may have get different opinion if I would ask the same questions surrounded self-care during the harvesting time. For example, children and parents linked most of the problems surrounded with food unavailability. For example, when were asked about their children involvement to sexual behaviours, , they were all mentioned that they do not have anything in their stock and also money in their pocket at that moment and that is the major reasons for the children to engage in sexual behaviours. Even children also respond in the same way. And that might be the case, but also that might reflect some expectations they might have regarding food aid which sometime are distributed by the state and other organizations such as the World Food Programme when famine occur in rural villages as noted in section 3.2.

3.4.3 Being familiar with the study setting

Some social science researchers suggest that doing research in a familiar setting may affect the study as a researcher takes events for granted, leaving important data unnoticed or unrecorded (Punch 2001a). My experience as a ‘native’ researcher working in a foreign research institution (Durham University) made me very aware of this problem. For instance, it was sometimes

difficult for me to understand when my supervisors commented that some events or findings were ‘very interesting’. With time I realized that we were seeing the same thing but with different interpretations. Something that was ‘very interesting’ as a research finding for foreigners was not necessarily interesting to me as I perceived them as ‘normal’ things because I was familiar with them. Therefore during the present study I tried to record and take notice even of things/events which I perceived myself to be part of, such as everyday events or behaviours.

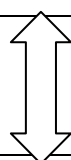
3.5 Data analysis

Data obtained from interviews was transcribed. Transcription of digital recorded interviews was done in Swahili language and with care to preserve the core content of the dialogue. Initial data analysis began during the field work period and new lines of inquiry were developed as they arose from initial readings of the field materials including transcripts. Issues that emerged from the participants’ accounts and experience were used to inform additional questions in the topic guidelines for further exploration such as group sleeping in relation to malaria and sexual behaviours. These issues also helped to identify other issues which needed further exploration for instance children visits to videos houses and beer clubs. These places were not initially suggested for participant observations but I had to do it in order to strengthen the findings. . Moreover, an ex- self-care pupil who was expelled from the school for being pregnant was not among the population study in the initial plan. But her information was important to provide an understanding of the claims from villagers who put a very strong relationship between pregnancy incidences and self-care. After data collection, the first step was to become familiar with the gathered materials. This involved listening carefully to digital recordings and transcribing, studying participatory diagrams and timeline activity charts and reading transcripts and observational notes. The next step was to identify the key issues, concepts and themes drawing

upon prior issues (those informed by the original research aims and questions introduced to the interviewees via the topic guide) and emergent issues raised by the respondents themselves. Key issues/concepts were presented in charts according to themes (see table 1). The next step was to look for similarities and differences between patterns and themes. Then relationships and connections between themes were established and the final step was the interpretation of data. The following diagram illustrates the whole process of analysis.

Step 1 Familiarization

- Listening to tapes and digital recordings / reading field notes, spider diagrams and timeline activity charts
- Transcribing and making notes
- Identifying key themes
- Merging themes



Step 2 Development of themes and sub-themes

Themes	Sub themes
Children’s roles and household responsibilities	<ul style="list-style-type: none"> • Children’s household labor allocation, gender and age • Children’s perceptions of household tasks • The impact of household tasks on schooling
Children’s vulnerability to risky sexual behaviors	<ul style="list-style-type: none"> • Freedom and sexual behaviors • Food insecurity and survival sex • Fear; sleeping arrangements and sexual behavior
Children’s vulnerability	<ul style="list-style-type: none"> • Malaria risks behaviors which are related to the non-usage of mosquito bed nets and socializing outdoors

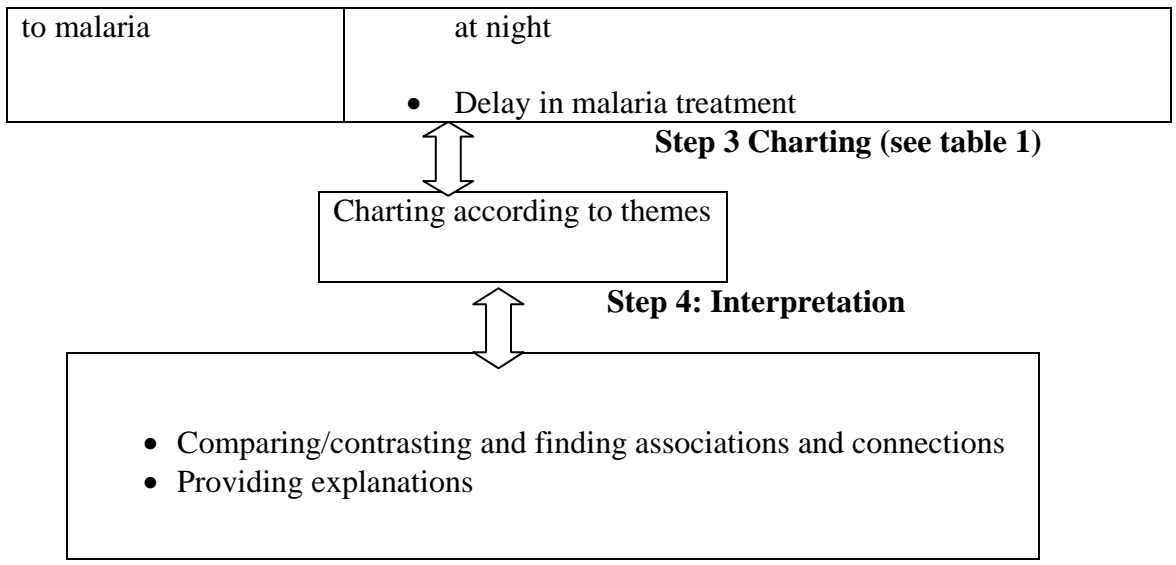


Figure 6: Data analysis process

Respondent	A1 Personal Information	A2 Family information	A3 Roles and responsibilities when parents are away	A4 Roles and responsibilities when parents are in the village	A5 Challenges posed by roles and responsibilities	A6 School attendance and time for arriving at school (reasons)	A7 Time for studies while in self-care/when parents are in the village
IR 106 Sipi	Age : 14yrs Class: 5 Gender: M	Permanent Family members: Sipi, mother, father, sister, 2 younger siblings Left in the village: Sipi and her sister (older than him)	Sometimes help his in cleaning the surroundings and searching for firewood.	Normally these roles do not change when parents are in the village	No challenges	Not attending school when food is finished, need to go to shamba (family farm) to work or take food from parents	When parents are in the village normally force him to study after supper/evening after school hours No time to study-playing with friends
IR 107 Hamisi	Age: 14yrs Class: 6 Gender: M	Permanent family members: Hamisi, mother, father and 2 young brothers Left in the village: Hamisi and his young brother Parents normally move in December/November and come back in August or July	Cleaning the house and surroundings Collecting water Searching for mboga and firewood Preparing and cooking food Washing dishes Taking care of his young brother	Normally change when her mother is back. Housework is not for men but for women	It is a problem. He has to do most of the household tasks alone with very little support from his brother. He regrets that they don't have a sister to do household tasks It is a big challenge because his time for playing with friends is absorbed by housework	Not attend school when his young brother is sick Normally go to shamba. To work on people' farms in order to get money to buy food. When his school uniform is dirty.	Often he has time for studying when parents are in the village especially after supper and after school hours. No time to study while in self-care

IR 108 Salim	Age: 13yrs Class: 5 Gender: M	Permanent family members: Salim, mother, father and Young brother Left in the village: Salim and his young brother (6yrs)	Cleaning the surroundings & house. Washing dishes, preparing and cooking food Searching for mboga	Normally change when his mother is back. His mother is responsible for attending household tasks. Most of his time is spent playing and attending school	Too much work for him, very little assistance from his younger brother. He wishes that he had a sister to do those tasks	Not attend school; attending to housework and playing with his friends. Normally go to shamba to work in people's farms when food is finished Normally comes late to school because of household tasks	He has no time for studying because of too much work, normally playing outdoors after dinnerwhile in self-care.

Table 1: An example of charts which were created to present themes

3.6 Participant recruitment and ethical considerations

The research participants in this study comprised school-aged children, teachers, parents and key informants. The procedure for identifying children who are in self-care started by requesting all school students (during a school assembly) in each of the two villages 'who were in self-care' to remain after school while others were to return home. Most children in both schools were in self-care and teachers confirmed that. Participants of the study were purposively selected and most children who participated in individual interviews and participatory exercises were older children who headed families when parents are away. Reasons for involvement (selected children) and non-involvement were clearly provided to the children (Matthew et al. 1998). Children participants were selected according to the age. Older children between 11yrs-15yrs were interviewed, some of them headed families in the absence of their parents, while others were not. This age group was ideal because some of my research questions required information about roles and responsibilities within the household when parents are away. Ideally older children would be in a better position to answer how tasks are allocated in the household and managed than younger siblings in the household. Moreover older children are more experienced in self-care's life than the younger ones. In order to avoid over-reporting or underreporting particular for household labour allocations among household members (children), some younger siblings who were living with their sisters or brothers who were participants in my study, were also interviewed in the informal settings so that to complement with the information which were provided by their sisters and brothers. Valentine (2005) commented on the advantage of getting information from a number of household members rather than relying on one person's testimony on household issues. She argued that that this provides more spontaneous, richer and validated

accounts. House visits also helped me to observe what is really happening between household members in terms of roles and responsibilities. The selection among older children was based on their ability to express themselves and willingness to participate in the study. Teachers were assisted in identifying participants and assist in making arrangements for data collection. Interviews were conducted during the class hours, particular when other pupils were working outside the classes such as digging or cutting grasses.

Verbal consent from children was obtained before seeking consent from parents (written informed consent) in order to make sure that the involvement was influenced by their own desire to take part and not by teachers and parents. The selected participants were given full information in a verbal form beforehand on the aims and scope of the study. The benefit and risks of being involved, the length of the study, the amount of time needed and methods to be implemented were also clearly explained. Children were aware that they were not under any obligation to participate in the study and that they were allowed to withdraw from the study at any time without any negative effects on them. Small payments which were given to children later in the study as an acknowledgement of the time they had given were not mentioned when negotiating consent with them. Children were assured of the confidentiality of the study, that their views and opinions would not be disclosed to parents/guardians, siblings or teachers and that their name and address would be protected. Children were also assured of the anonymity of all transcripts and that their identities in the study report would be protected by giving them pseudonyms. Parents were also made aware of the scope and aims of the study, confidentiality and use of data generated.

The recruitment of key informants was done through the support of village leaders who helped in identifying elders, influential people and political leaders in the two villages. The recruitment of

teachers was based on the role and responsibility of the teacher to school children. The use of a tape recorder and camera were explained in the information sheet and again before the interviews and focus groups. Verbal consents on the use of the camera and the use of the photographs were clearly explained. For example the use of photographs will be for research purposes and may, therefore, be used as part of academic publications and reports. Table 2 provides a summary of the 22 school-aged children who acted as research participants. The term uncle as used in this thesis refers to the mother's brother. Moreover it should be noted that all the names used in this thesis when referring to participants are pseudonyms (see chapter 1).

No	Participant name	Age/gender	Class	school	Permanent family members	Family members left in the village
1	Halima	14yrs old Female	6	Kidugalo	Halima, mother, father, older sister and two brothers,	Halima and two brothers 12 & 8 years old
2	Jema	15yrs old Female	7	Kidugalo	Jema ,father, mother, uncle and grandmother	Jema,uncle (secondary school student) and grandmother
3	Johari	14yrs old Female	7	Kidugalo	Father, mother, two younger siblings, uncle	Johari and her uncle (secondary school student)
4	Tuma	15yrs, old Female	6	Kidugalo	Tuma, mother, father, three younger siblings	Tuma, younger sister 12yrs, two younger brothers 6yrs in nursery school.
5	Sesi	13yrs Female	5	Kidugalo	Sesi, father ,mother, older sister	Sesi, older sister (secondary school student)
6	Tea	12yrs old Female	5	Kidugalo	Tea, father, mother, four younger siblings, grandmother	Tea, two brothers (both 9yrs old)
7	Vumilia	12yrs old Female	5	Kidugalo	Vumilia, father ,mother, two younger brothers, older sister	Vumilia, older sister 15yr, two younger brothers in nursery school
8	Zulea	15yrs old Female	6	Kidugalo	Zulea, mother, father ,older sister, older brother, younger brother	Zulea, younger brother in nursery school
9	Kili	11 yrs old Male	5	Kidugalo	Kili, father, mother, two older brothers, older sister, younger brother	Kili, two brothers (both in secondary school) older sister (in primary school)
10	Jafari	12yrs old Male	5	Kidugalo	Jafari, father, mother, older sister ,younger brother	Jafari, older sister (both in primary school)
11	Shomari	15yrs old Male	6	Kidugalo	Shomari, uncle, younger sister	Shomari, younger sister 10yrs old (both in primary school)
12	Twali	12yrs old Male	5	Kidugalo	Twali, older brother, mother, Grandmother, younger sister	Twali, older brother a student in secondary school
13	Sipi	14yrs old Male	5	Iragua	Sipi,father,mother,older sister,two younger siblings	Sipi, older sister 15yrs old (both in primary school)
14	Hamisi	14yrs old Male	6	Iragua	Hamis, father, mother, two younger brothers	Hamisi, younger brother 10yrs old(both in primary school)
15	Salim	13yrs old,Male	5	Iragua	Salim, father,mother, younger brother	Salim,younger brother 6yrs old in nursery school
16	Musa	15yrs old Male	5	Iragua	Musa, father, mother, nephew	Musa, nephew (he is younger than Musa)
17	Sadi	15yrs old Male	6	Iragua	Sadi, father, mother, two younger sisters	Sadi, two younger sisters 14yr&10yrs
18	Eliza	13yrs old Female	6	Iragua	Eliza, father ,mother, two younger brothers	Eliza, two younger brothers (both are in Iragua school)
19	Imani	14yrs old Female	7	Iragua	Imani, mother, elder mother, grandfather, three younger sisters	Imani, three younger sisters and grandfather
20	Leah	12yrs old years	6	Iragua	Maisha, uncle, aunt, two younger brothers	Maisha , younger brothers 8 & 10yrs old
21	Maria	14yrs old year Female	7	Iragua	Maria ,mother ,grandmother, older sister, older brother and grandmother	Maria, grandmother, older brother
22	Sauda	15yrs Female	7	Iragua	Sauda, father, mother, older brother, three younger siblings	Sauda, older brother 16yrs old,two younger siblings 12yrs old and 8yrs old

Table 2: Overview of the socio-characteristics of the children participants

3.7 Chapter summary

In this chapter, I have justified the individual methods, discussed my own positionality, given an overview of how I analysed the data and have considered important ethical issues that are relevant to the study. As noted earlier, qualitative methodology is inherently exploratory in nature, and using this methodology helped me to explore and obtain rich information on the impacts of self-care arrangements among school-going children in farming households in rural Tanzania, a topic which is highly under researched in this setting and in wider sub-Saharan Africa. Qualitative methodologies are particularly useful in enabling researchers to elicit information and insights from the main actors. In this study responses were obtained from the children themselves who were the main actors in self-care situations. As has been noted, in-depth qualitative methods help to elicit deep and holistic information on the prevailing circumstances and how and why things happen as they do. For example in the present study (see Chapter 4) how children coped with particularly difficult circumstances involving household food shortages by engaging in transactional sexual activities. This brings us to the next chapters which present the detailed findings which were obtained through the qualitative methods discussed in this chapter.

The following results chapters will offer the key findings of the empirical work I undertook linked to the thematic discussion in Chapter 7 and presented according to the themes developed during the analysis. The findings reflect an analysis of the participants' subjective accounts of their perceptions and experiences of self-care arrangements and will be presented in three chapters. Chapter 4 will focus on children's roles and responsibilities, Chapter 5 explores children's vulnerability and exposure to sexual behaviour, and in Chapter 6 aspects of children's vulnerability to malaria will be discussed. However the socio-demographic characteristics of

children who participated in this study will be presented first in order to provide an overview of the study sample.

Chapter 4: Children's household roles and responsibilities

4.1 Introduction

Although children's participation in household responsibilities can be seen as an integral part of growing up, a process of socialization, some scholars argue that their participation is influenced by the situation of adult members of the household, particularly when the mother's time is constrained or limited due to employment outside the home (Colge and Tasker 1982, Blair 1992b, Mabala and Kamazima 1995). This means that parents are relying on their children as a substitute to help with domestic tasks within the household. It has also been noted in the present study that when parents worked away from home on farms, they relied entirely on their older children to shoulder all the household's responsibilities including both household tasks and looking after younger siblings.

Much existing social research which focuses on child labour in households indicates that the distribution of domestic tasks in households is not entirely equitable among children (Colge and Tasker 1982, Blair 1992a, Mabala and Kamazima 1995, Mukangara and Koda 1996). Older children are more likely to perform household labour, and girls are more likely to perform a greater range of household tasks than boys. Thus, the child's age and sex significantly affects the type and time spent by a child on housework. In the present study, age and gender also appeared to be key determinants of the expectations and allocation of the children's household labour when they are in self-care, and the two concepts of age and gender will be used to organize my

findings under this theme. In addition, my study found that involvement in household tasks was linked to risky behaviour for school children, such as non-attendance and late arrival at school among children who are in self-care. Similar findings have been reported in other studies in Tanzania and Ethiopia (Mabala and Kamazima 1995, Admissie 2003).

My two main aims here were firstly to establish the precise roles and responsibilities of school children both girls and boys while they are in self-care, and secondly, to understand the challenges faced by the children particularly in regard to their schooling in the absence of their parents. In order to understand their experiences I conducted in-depth interviews and focus group discussions with children in self-care. Children were asked about their roles and responsibilities in the household by asking them to describe a typical day, including their different activities. I also wanted to know if these roles changed when their parents returned to the village. I also designed group activities, for example where the children drew a timeline of a normal school day. Children were asked to explain the main challenges posed by their household roles and responsibilities and whether they had enough time for studies when their parents are away, and whether this was different when their parents were living in the village home. For the purpose of clarity this chapter has been split into three sub-themes although it is important to note that the issues under discussion are interwoven. The three sub-themes are: the differences between allocation of tasks between boys and girls, the challenges and implications of performing domestic tasks, and finally, the perceptions of the community towards household responsibilities for school children while they are in self-care.

Before presenting the findings it is important to provide a general picture of the environment where I undertook this study, as it has been argued that the extent and nature of children's household work varies in different societies throughout the world according to cultural norms,

the wealth of households, parents' employment status, household composition and whether it is a rural or urban location (Punch 2001b). This study has been undertaken in typical rural villages of Kilombero valley in Tanzania (See chapter 3) where there is an extreme lack of basic services. There is no electricity and there are no telephones, making communication between children who are in the village and parents in the field very difficult. Only a very few people are wealthy enough to have a mobile phone. There is a limited supply of clean water and no modern labour-saving technology to help with domestic work. The villagers are also dependent on collecting firewood for cooking. Therefore when parents are away in the field sites, children have the time-consuming tasks of collecting firewood and water regularly for cooking, and this may necessitate long walks to isolated water points and to wooded areas. Food preparation involves fetching 'mboga' a common relish normally eaten with ugali, the main dish made by stiff porridge from maize flour. The most common green leafy vegetables in these two villages are sweet potato leaves, cassava leaves, pumpkin leaves and spinach, normally found in small gardens around houses and in bushes. In these circumstances it is important to bear in mind that household tasks can be both time consuming and exhausting particularly for children, who at the same time are expected to attend school.

4.2 Children's household roles and responsibilities when in self-care.

The findings of this study indicate that, in the absence of parents, all household roles and responsibilities are shifted to the shoulders of the older children for both looking after their younger sisters and brothers and performing domestic chores each day. The findings also show that there is a significant increase in household responsibilities on these children in the absence of parents compared to when their parents are in the village. For instance, when parents are

present in villages household tasks are shared by household members, in particular mothers and older sisters who have already completed school and are not yet married.

Moreover the present study found that the allocation of household labour depends on age and sex, affecting both the type and amount of time spent on housework. These two factors are highly influenced by the household sibling structure: in households with both girls and boys, and the girl(s) are capable of doing housework, *gender* appeared to be a key determinant, while in households with single sex children *age* appeared to be a key determinant. Similarly in households with older boy(s) together with younger girl(s) and where a girl is not capable of doing housework, *age* appeared to be a key determinant.

4.2.1 Gender

Sex-role stereotyping in children's participation in the household was quite evident in the households with both girls and boys of similar ages. In these households, housework done by boys and girls mirrors that of adults with girls doing stereotypical female 'chores' and spending more time doing housework than boys. Girls performed most of the household chores traditionally perceived as women's domestic roles including cleaning, dishwashing, working in the kitchen, caring for their younger brothers and sisters, and collecting water and firewood. Boys performed outside chores including cutting the grass around houses and 'sometimes' sweeping the compounds. Generally, in these households a girl child is left to look after the younger siblings (sometimes grandparents if available) together with all the other family responsibilities such as household management including allocating of tasks (especially to younger girls), budgeting, resolving financial problems and decision making (as shown in Table

3). Participatory diagramming ‘timeline activities’ with girls and boys in both Kidugalo and Iragua Schools demonstrates this as illustrated in Figures 7 and 8.

Table 3: Children’s roles and responsibilities while in self-care

Household responsibility	Examples
Income generating activity	Casual agricultural work, running errands for neighbours, domestic work
Household management	Allocating tasks, budgeting, decision-making, resolving financial problems
Household chores	Cooking, sweeping, washing dishes, cutting grasses around the house, collecting water, firewood, and ‘mboga’, kitchen related tasks such as pounding, peeling etc
Self-care	Personal care, getting ready for school, private study, taking medication particularly pain killers
Caring duties	Attending a sick person in the household, providing medication , bathing, dressing and washing siblings, getting siblings ready for school, supervision
Community engagement	Seeking support from neighbours

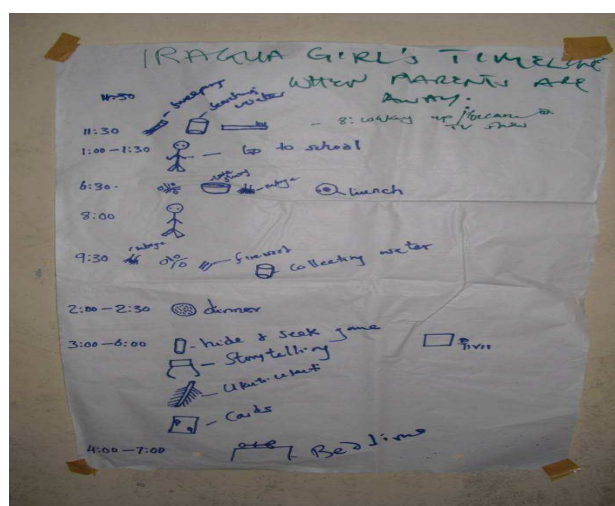


Figure 7: Daily Activities performed by girls in Iragua village in the absence of their parents

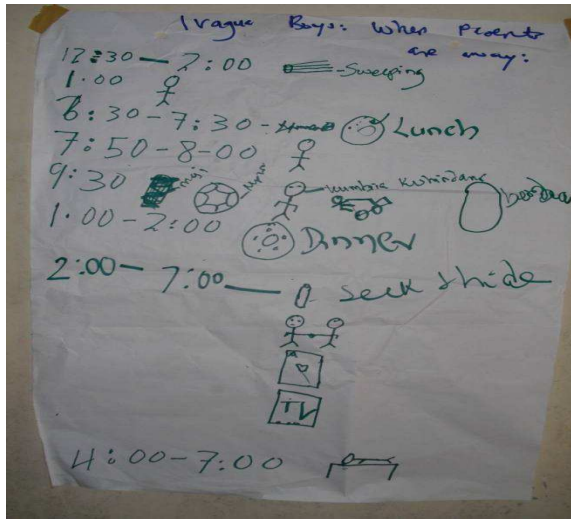


Figure 8 : Daily Activities performed by boys in Iragua village in the absence of their parents

As noted in Chapter 3, timeline diagrams are in Swahili time. For example 12:30 -2:00 in Figure 8 represents 6:30am-8:00am in English time while 4:00-7:00 (marked as bed time in Figure 7) is equivalent to 10pm-1am in English time. These two diagrams show that household labour allocation is highly gendered with girls contributing more household labour than boys. Girls are also waking up earlier than boys, regularly doing a couple of tasks before going to school, again during the midday break and again in the evening after school hours, while the tasks performed by boys were irregular and interspersed with long periods of resting. The substantially larger workloads for the girls were performed each day and could not be shirked in the daily struggle for survival while the boys were freer to choose when and if they did domestic work. These observations were supported by the findings from one-to-one interviews with girls and boys in both villages as the following example demonstrates:

Sauda is a 15yrs old girl. When parents are away in the fields, she stays in the village with her older brother Rodham and two younger siblings Tamia (a girl) and Hilari (a boy)

She described her typical day as follows:

‘I normally get up early in the morning because I have to collect water and sweep the compound before I go to school. In the midday break I come back home for lunch. So I have to fetch ‘mboga’ and cook ugali. After taking lunch we go back to school. After school hours I have to fetch mboga again, collecting water and firewood, wash dishes and preparing supper, my younger sister is normally assisting me in these tasks’.

When asked what her older brother Rodham does on his typical day, Sauda replies:

‘He normally does nothing in the morning except personal cleanliness. In the evening after school hours, he normally cuts grasses around the house and goes to play with his friends... Sometimes we ask him to assist us with our tasks, but he would say “do you think these tasks are for men? You have to do these because you are women, these tasks are yours”.

A similar example came from a boy who stays with his sister when their parents are away working in the family farms:

Sadi is a 15yrs old boy. When parents are away in the fields, he stays in the village with his younger sisters Aina and Neema.

Sadi describes his typical daily activities as follows:

Sometimes, I clean the compound before going to school in the morning. During the midday break my sister prepares ‘ugali’ for us and I wait. Then in the evening after school hours I may go to collect water, though my sister normally does the job. Sometimes I clear the ground’

When asked why he doesn’t participate in carrying out domestic chores Sadi said ‘These are women’s tasks, I can assist my sisters but these are their responsibilities’.

The above extracts are typical examples of the division of labour in the households where gender plays a key role in allocation of household tasks. Girls are expected to perform household chores while their brothers spend less time on these activities. The above extracts show that Rodham and Sadi spent considerable time (particularly after school) playing and spending time with friends while their sisters are not. A few boys also reported using this time to do school homework and to prepare or organize their things for the next day at school such as washing

their school uniforms. In the spider diagramming activities many children indicated among the reasons for school absenteeism was dirty school uniforms. During the discussion, they said it is because they do not have enough time to wash their school uniforms during the evening after school hours due to other household commitments such as collecting water and firewood, and cooking. They made references to how most evening tasks, including washing uniforms, are required to be done before dark. Therefore they purposively choose tasks which are connected with cooking and washing school uniforms is normally done the following day. So doing they miss morning school sessions. This has an important connection to food as a basic need as many children reported missing lunch (as reported in the next section), so collecting 'mboga' and water, and cooking must receive their first priority. Attending school with a dirty uniform or without doing home work is normally associated with corporal punishment.

Gender division of labour in these households is a direct consequence of the different socialization processes given to boys and girls by their parents. My findings show that the gendered division of labour among children reflects their parents' gender roles and attitudes, and boys and girls are socialized into an acceptance of these norms, through understandings of what is appropriate in the allocation of household tasks. Gender roles within the household are therefore continually reinforced as the following three quotations illustrate:

'I do all the household chores with no support from my younger brothers because our father would not allow them to do household tasks. But, when I'm exhausted I ask them to assist me to collect water....and when we go to 'shamba' during the weekend they report to our father that I have been asking them to assist me in doing chores....when our father receives this kind of information he always becomes very annoyed and he tells me that "these are men, they are not allowed to collect water, washing dishes and cooking"...I'm afraid to ask them to do these tasks ...' (*Tea 12yr old girl, Kidugalo*).

'... I do all household tasks without any support from them.... When I ask them (her younger brothers) to assist me they would tell me that these are women's tasks ...also my mother often says that "these are boys and they are not supposed to do household chores".. when she is at home she doesn't allow them to wash dishes, to clean the house....' (*Halima 14yrs old girl, Kidugalo*)

'I'm not participating in domestic chores because my parents told me not to engage in domestic chores and I have always known that being a boy I'm not expected to engage in girls' related domestic chores'. (*Jafari, 12 yrs old boy, Kidugalo*)

The first two extracts above show that older sisters appeared to find it more difficult to allocate household chores to younger male siblings. Most young girls who participated in my study reported that they were not respected by their younger brothers who sometimes used insulting language to their sisters for asking them to carry out what they regarded as girls' tasks. They also commented on how tension and conflicts were commonly experienced among themselves regarding domestic tasks. Further, it was revealed in the findings that boys have more freedom of choice in relation to participation in housework than do girls. Doing household tasks was not perceived as an obligation on the boys: rather their participation in some chores such as sweeping compounds or fetching water was commonly perceived as assistance to their sisters.

This gendered division of labour not only overworks girls to the point of exhaustion and but also provides opportunities for boys to mistreat, despise and order their sisters to carry out their wishes. The boy is justified in asking his older/younger sister (who is doing another task) why food is late, while he himself has been doing nothing at all. This gender difference is sometimes

manifested in male family members exerting physical violence against girls as the following interview quotation illustrates:

'I normally do all chores; my grandma cannot help me because she is old and blind. ...my uncle is not helpful at all. When he comes back from school and finds no food in the kitchen he would beat me for not preparing food...If I tell him that I'm tired I can't cook ...he would do it himself and he would forbid me to eat' (*Jema, 15yr old girl Kidugalo*)

As Jema reported, young girls in self-care together with their older brothers reported being punished by their older brothers/uncles particularly when food is not ready on time which they expect. Some reported being insulted by bad words if they would not call their brothers who are playing when the food is ready. My study therefore shows that gendered division of labour among household members often generates tensions which sometimes result in physical violence. In unsupervised situations, where adults are not present to settle arguments, fighting can have poor outcomes such as non-attendance at school if a child is seriously injured.

The extract from the interview with Jema also typifies those situations in which children stay with their grandmothers or grandfathers while parents are away. Where grandparents are frail or sick, children reported that the presence of grandparents can increase the burden of care on them as the grandparents themselves need extra care and attention. In some cases these children do not regularly attend school because of the need to provide care for sick relatives or having to go to the farms to report illness to their parents. These findings were supported by parents in the focus group discussions in both villages. When asked why they leave their children without the supervision of their grandparents, the common answer was the need to minimize the burden of care to their children, as most of the old people need care and attention from caregivers

(grandchildren) and at the same time they cannot provide support on chores or on supervising because of their condition (aging related problems such as blindness or lack of energy).

School as a common space for resting was reported by many children who are obliged to perform household responsibilities. As will be discussed in the next section, teachers reported that it is common for children who are in self-care to sleep in the class when they are teaching.

In the following extract Halima reports that the only place to have a rest is in school:

'I'm real tired with these tasks [domestic chores] there is no time to rest at home.....I normally rest at school! But I don't have choice I need to do all tasks alone (pause) if I would not do it would mean that my younger brothers will ask me about the food, and if I would say I'm tired that's why there is no food that would result in problems with my parents and also with them (*Halima, 14yrs old girl in Kidugalo*).

In my study gendered divisions of labour were not only observed at the household level but were also evident in the wider community. During my stay in these villages I participated in social events such as funeral ceremonies (see Chapter 3) and in these ceremonies women were carrying out the majority of tasks which traditionally are perceived to be female tasks such as collecting water, searching for 'mboga' and preparing food while men were doing outside tasks such as digging graves and spending most of their time chatting.

In summary, prevailing customs and social norms influence gender role socialization which is related to future role expectations. Performance of domestic duties is considered an essential component of a girl's upbringing. The impact of this gendered pattern of raising children is arguably more significant for girls as they have heavier workloads than boys. Related tensions may also affect girls both psychologically through low self-esteem and stress, and physically

because of punishment from male family members. Girls are therefore forced to sacrifice much of their recreational, schooling and social needs in order to meet the broader needs of the family.

4.2.2 Age

The impact of age was clearly apparent on children's allocation of household tasks when parents are away, where older children participated more in housework than younger ones. Some authors have found that children's roles accumulate a complexity over time; thus as children get older they are physically more capable, socially more responsible and have acquired competence through experience and practice to take on certain tasks autonomously (Goodnow and Delaney 1989, Blair 1992a, Punch 2001b). During focus group discussions with parents and in the interviews with teachers, age was mentioned as an important factor in the division of children's household labour. In the households where only either girls or boys are present or there is no capable female sibling to do the housework, age appeared to be the key determinant. Gender roles were therefore reversed and boys had to perform all domestic chores.

It was interesting to note that a traditional gender role was reversed in these households where boys carried out household tasks because the boys have no choice as illustrated by one boy:

'I would say this is the first thing I hate about this issue [self-care arrangement]... it is very bad experience when my mother is away (pause) domestic works are many and repetitious, but I have to do them allWe need to eat.....we need to have water in the house (*Musa, 15yrs old, Iragua*)

This is also shown in an interview with male pupils in Kidugalo and Iragua primary schools where they describe their activities in a typical day:

'I get up early in the morning, I normally clean the house and collect water before going to school. In the afternoon (midday break) I prepare food for lunch and in the evening after school I normally fetch 'mboga', collect water, firewood and prepare supper. If there is a spare time after supper I play with my friends.'

Interviewer: 'Is your younger sister helping you in these tasks'?

He replies: 'She is normally helping on washing tasks but I normally do all domestic chores'. (*Shomari, 15yrs old Kidugalo*)

' I get up in the morning, I collect water and take shower before going to school...in the midday I normally cook ugali for lunch...in the evening after school hours I return back home. I collect water, I wash the dishes, I fetch 'mboga', and cook supper and then I go to play with my friends....' (*Musa, 15yrs old, Iragua*)

Interviewer: 'Are you doing these along with your nephew?

Musa: 'He is too young but sometimes I asked him to cook his food when I feel tired, and sometimes I asked him to wash dishes'.

The present study revealed that most older children participated more often in housework than did younger ones. . Apart from household tasks, they are also responsible for household management such as allocation of budgeting, decision making, and resolving financial problems. Allocation of tasks to their younger siblings in these households did not generate conflicts between household members as it does as noted above. It appeared in this study that younger siblings in these households (where only boys or girls are present) respect their eldest siblings' authority. Minimal or no conflicts between household members in task allocation in these households suggests that attitudes, perceptions and expectations of children, particularly boys, are internalized through the processes of socialization. Boys' feelings and perceptions while doing domestic chores are further discussed in the following section, Section 4.3.

4.3 Household roles and responsibilities, and schooling

The above data demonstrates that when parents are away at their farms the older children are expected to shoulder all their household responsibilities, even if they are also expected to attend school. The burden of care increases if there are younger siblings and grandparents in the household to be looked after. The findings show that these two important obligations which require children to do household tasks as well as attending school appeared to be very difficult for children who were in self-care. Moreover, such disruption in their school attendance was even worse if they had to take care of someone who was sick and needing special attention. These kinds of problems give rise to absenteeism from school and serious disruption to children's learning. As was noted in the timeline exercise (see Figures 7 and 8) when children are in self-care they lack time for studies especially after school hours as they (particularly girls) are very much occupied with household tasks. The findings also show that the situation is different when parents are present in villages (see Figure 9) where children had time for studies and leisure activities in the evening after school hours.

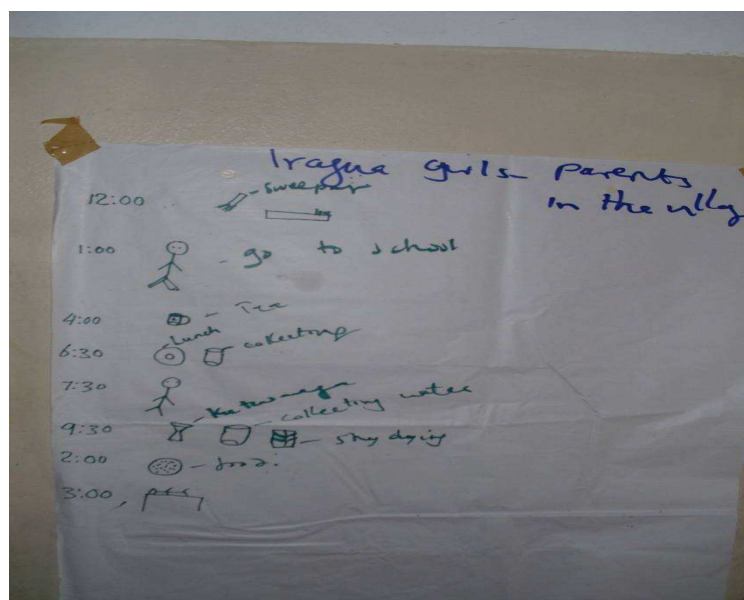


Figure 9: Daily activities performed by children when their parents are in the villages

The relationship between school attendance and household tasks were clearly seen to be mutually incompatible. The school timetable in both schools normally commences at 7:30am followed by 30minutes short break at 10am. The midday break is between 12:20-1:30pm. Children need to do some tasks before going to school and also have to prepare food during the midday break and return back to school for the second session. Most children during the interviews reported that they did not have enough time in the morning for all the tasks and thus often arrived late at school. Sometimes, in these situations the teachers have already finished their lessons and have left the classroom, exercise books have already been submitted or marked, and lessons on the board have been erased as illustrated by the following extracts from both children and teachers:

‘Most of the time I miss the first lessons because of arriving late at school. Sometimes I find the teacher has finished his teaching and has left an exercise to be done by students...If I find the teacher in the class teaching he/she would not allow me to sit in the class so I would wait until he/she finishes teaching and mark students’ work and sometimes I find the board is deleted...that means I can’t write anything unless I copy from my fellows’ (*Maria, 14yr old girl Iragua*)

‘It is all difficult for me come on time during the morning sessions, as I have to get my younger brother ready to school everyday apart from other morning tasks ...sweeping. Often I miss morning sessions but I can get some notice from my friends’ (*Zulea, 15yr old girl Kidugalo*)

‘There is a clear difference in the time of arriving at school between children who are in self-care and who are not.... you can imagine during midday break when they go back home for lunch, they find nothing to eat, they have to fetch ‘mboga’, firewood and water and prepare lunch ...these activities are time consuming. The situation is different from the children who are staying with their parents; they find the food is ready for them’ (*male teacher, Kidugalo primary school*)

Respondents reported that if the teacher is already in class and teaching, they would often not be allowed to sit in the class but instead have to wait outside until the end of the lessons.

Participants also commented on how they would even be punished before being allowed to sit in class. Though teachers seem to be aware of the extra household tasks performed by the children, this did not lessen the view that children should be punished for arriving late at school, even if this was because of tasks like preparing food. The findings also show that being punished for lateness was an important factor in children's further absenteeism.

Teachers from both schools seem to be aware of the problems faced by children in self-care. However, despite being aware of the situation facing such children, teachers do not always seem sympathetic to their situation, as the following remarks from teachers show:

'We know it is difficult for these children to go with school time-table , some of them drink water instead of having food' (*a female teacher, Iragua village*)

Interviewer: 'Since you are aware of the problem, do you think the school system needs to be flexible in order to help children'?

Teacher: 'Mmmh (nodding head) I don't think so because we have already made changes in the time table ...in the past it was just half an hour...it is impossible to make further changes'.

Teachers therefore consider that it is up to the children to adjust themselves to the timetable. My findings indicate that some children try to cope with these situations but these strategies have implications for their health and wellbeing, for example by skipping lunch and only taking one meal in the evening as illustrated by the following two extracts:

'I usually have only one meal, that is supper because lunch is too short, I would have to come late at school, only to be punished for lateness, which I always avoid' (*Johari, 14yr old Kidugalo*)

'Sometimes we do not go for lunch during the midday breaks if there is no left over mboga because this will include going around looking for mboga and preparing...the time available during midday break doesn't allow these activities...'(*Musa 15yr old boy Iragua*)

Another strategy adopted by children to cope with the combined responsibilities of housework and school is to only attend the class session which was most convenient, either the morning or the afternoon session, as illustrated by both children and teachers:

'In my case I usually attend afternoon sessions after I have accomplished my necessary domestic activities such as cleaning up the house and washing my clothes' (*Hamisi, 14 yr old boy Iragua*).

'I think time is a big problem and only children who are keen for studies can afford that....it is difficult in the mid day break to fetch mboga and cook ugali and return back to school...for some student they don't come after this break because they are hungry and they have to do all those tasks in a short time therefore it's difficult for them to manage...that's why absenteeism is common during this period [farming period]' (*a female teacher Iragua primary school*)

Although it has been widely recognized that children are social actors who take actions in their own interests (Blerk Van and Ansell 2004), it is also important to understand that children's actions can have unintentional adverse consequences. Such coping strategies as identified in the interviews can have harmful impacts on their health and intellectual development, for instance skipping some meals in order to avoid punishment. Comments from the children also revealed that even if they were able to combine domestic work with attending school, the housework left them exhausted, and so they were often too tired to concentrate on their school work. This was recognised by teachers as the following quotation illustrates:

'You know cooking itself it is a time consuming activity, yet still they have to fetch 'mboga' and do other tasksI guess they go to bed very tired....we normally give them homework to be done in the evening but some of them do not do them, as far as I know it's because of chores they don't have such time in the evening' (*A male teacher, Kidugalo village*)

As noted earlier, food insecurity is a recurrent problem in the stud area, particularly the during the farming seasons. My findings show that families are commonly working in casual agricultural work such as weeding in order to raise cash to buy food. In self-care households children and their parents normally work during week-ends in order to sustain them for the following week. All participants (teachers, parents, key informants and children themselves) commented on the need to undertake paid labour for obtaining food and other basic needs. Findings from one-to-one interviews with children revealed that most of the time children have to work alone on people's farms without their parents, particularly on week days when food is in very short supply. Data indicate that food which is obtained during the week end lasts only for two or three days (see Chapter 5). When reflecting on the reasons for school absenteeism many children mentioned unavailability of food as an important factors the following example, typical of many children in self-care demonstrates:

'It is because of food... when the food is finished during the week days I normally go to ask permission from teacher on duty then I come home to change my uniform...then I go to 'shamba' and most of the time my parents don't have money to provide so I have to search for 'kibarua' (agricultural paid labour). I return back to the village when I get enough money to buy food (*Sauda 15yr old girl, Iragua*)

This finding was confirmed by parents and key informants during the focus group discussion in Iragua. Reasons for not providing food or money during week days stated by parents were the need to work on their farms but also as a punishment for what was seen as poor budgeting of the

food by some children. And this is said to increase the vulnerability of adolescents' girls to sexual behaviours (discussed in detail in the next chapter).

Some children also reported having to carry out domestic work and run errands for neighbours such as teachers etc., and taking care of a person who is sick as other reasons which cause serious disruption to school attendance. Thus children and teachers reported that when a sibling or grandparent is sick, children have no other choice but to take care of the sick person; this can involve travelling to farms to report to their parents if there is no improvement as illustrated by the following examples:

'When my grandfather is sick, I have to collect water and cook for him....I can't leave him alone until my mother comes'(*Imani, 14yr old girl Iragua*)

Interviewer: 'How does she know that your grandfather is sick or someone else in this household is sick'?

Imani: 'If there is no improvement after taking paracetamol (pain killer) then I would go to the farm to tell her, or ask our neighbours who have farms near to our farm'.

' It is difficult not to allow these children to take care of the sick person or when they want permission when they don't have food, it will be unfair to ask them to sit in the class while we know her/his sibling is sick at homeand we know this period (farming period) these children are mothers and fathers at their home ha ha ha ha' (laughing) (*male teacher Iragua primary school*).

As the above extract indicates, children heading households can be regarded as parents or guardians of their younger siblings. However many children expressed negative feelings about having to take on a full-time parental caring role while they were still young (see Chapter 5) and some children sometimes felt overwhelmed by domestic tasks and caring responsibilities. The following section discusses further these attitudes and perceptions.

4.4 Children's perceptions of undertaking household responsibilities

When asked how they perceive household tasks and caring responsibilities when parents are away at their farms, it was common for both girls and boys to express negative feelings. Whilst girls were concerned about the increasing workload of household responsibilities and tasks on them in absence of their mothers, boys were not only concerned about the new responsibilities but also about being involved in domestic chores which reflect female activities. There are substantial differences in household tasks conducted by children (both girls and boys who have no sisters) when they are living with their parents in the village compared to periods when parents are away on their farms. As noted earlier, when parents are at home in the village, domestic chores are shared between mothers and older children, and school-aged children have less responsibility for these tasks. This was evident in the focus group discussions and in interviews with children and was also indicated in the group exercises.

Figure 9: Children’s household responsibilities while parents are present in the village

Boys without sisters expressed feelings of dissatisfaction about having to carry out domestic chores, describing them as boring, tedious, hard and exhausting as follows:

‘It is embracing to do these tasks , I wish I would have a sister like my friends ...imagine when I’m fetching ‘mboga’ my friends who have sisters are playing ...If I would have a sister she would be cooking for meI feel bad about doing these tasks , they exhaust all my time...there is no time for playing’ (*Hamisi 14 yr old boy Iragua*)

‘I normally fetch water, firewood and ‘mboga’ I know these tasks are for women but I don’t have a choice. I do not have a sister. If I did, my sister would do all these tasks’ (Salim,13yr old boy Iragua).

Gendered perceptions of housework may reflect different experiences of doing household tasks between girls and boys. For girls what appears to be dominant is the intensity of duties in the absence of their mothers, and the time it takes, rather than the nature of the duties as they are expected to do domestic tasks. On the other hand boys disliked not only the intensity of duties which take away their leisure time but also the fact that they had to perform household tasks traditionally associated with women. Furthermore some children, both boys and girls, expressed concerns over the lack of time for school studies. When parents and key informants were asked about the challenges which they think that their children faced when they are in self-care, the increase in workloads relating to household responsibilities were frequently mentioned. The main concern was the perceived adverse implications of family responsibilities on children’s schooling and health. Many adults reflected on the competing nature of activities which children in self-care were expected to undertake, as shown in the following two quotations:

'It is complex and difficult situation [combining housework and school] at their age... if they want to attend school regularly it means they have to stay hungry the whole day ...if not then they have to stay home working, because it is impossible to do both efficientlyChristina [interviewer] you have been to school... tell us the truth, is it possible for our children to perform well in these circumstances? These tasks pull down and down our children... we have nothing to do to help in this situation we have to work in shamba in order to live' (*Adult male Kidugalo village*)

'I guess most of the time they are thinking on long queue in the water collection point, how to budget food, soap, kerosene etc is there any space for school? I don't think so!' (*middle-aged female respondent, Iragua village*)

4.5 Summary of key findings

Older children undertook a range of activities within and beyond the household as part of looking after themselves and their sibling. These can be categorized under the headings of 'income generating activities', 'household management', 'household chores' 'self-care', 'caring duties', and 'community engagement' (Table 3). This chapter has argued is that children particularly girls and older children, face considerable responsibilities that both limit their ability to gain an education and have detrimental impact on their overall well-being.

My findings demonstrate that self-care children have to sacrifice schooling and social needs such as leisure activities as part of coping with these responsibilities. Significant changes occur in terms of household roles and activities when parents are away at their farms. When parents are living in the villages most household tasks and other family responsibilities are shared by members of the family but when adults are away, all tasks and responsibilities are left to older children. Both gender and age played a role in the allocation of household labour, where older children are participating more in household responsibilities than the younger ones and girls are participating more than boys. These findings support work carried out by Koda (2000, p250) who suggested that 'Depending on the degree of poverty, the education level of parents and the general policy environment, most children are forced to sacrifice much of their recreational,

schooling and social needs in order to meet broader needs of the family unit (domestic chores, child care, productive work etc)' My findings indicate that division of labour is far from equal as girls continue to carry out all or most of the daily household tasks even in households with older boys. The gendered division of labour among these children is a consequence of the nature of socialization given to boys and girls by their parents, and often resulted in conflict and tension among household members.

The need to undertake household activities has negative impacts in terms of school performance and food consumption for children in self-care.

The general community's perceptions of children undertaking household responsibilities in the absence of parents were negative. The following chapter takes forward the issue of children's coping strategies in terms of their finding ways to pay for food and budgeting. It considers how situations of food insecurity are accompanied by particular vulnerabilities, particularly for adolescent girls.

Chapter 5: Children's vulnerability to sexual behaviour

5.1 Introduction

Poverty, less parental supervision and control over children's behaviours and sleeping arrangements especially among unsupervised children have been frequently mentioned in studies as potential factors which influence adolescent premarital sexual activity. Thus adolescent girls from poor families, which do not provide adequate food, pocket money and other basic needs, have been reported to engage in relationships with older men who provide money or gifts in exchange for sex in parts of sub-Saharan Africa including Tanzania (Leshabari and Kaaya 1997, Nyanzi et al. 2001, Longfield et al. 2004, Wamoyi et al. 2010). It has also been argued that when adolescents spend time with each other without adult supervision, they have opportunities to engage in sexual behaviours (Cohen et al. 2002, Miller 2002). Similarly, some research has found that adult/parental supervision and control of children's behaviour and activities limits children's association with high-risk peers which indirectly decreases their children's exposure to sexual behaviours (Miller 2002). It has also been noted that sleeping in groups, particularly among children who are in self-care arrangements such as street children, potentially exposes children, especially adolescent girls, to sexual activity and abuse (Anarfi 1997, Lugalla and Mbwambo 1999). Premarital sexual relationships contribute to health-related vulnerabilities where older sexual partners use their power to force children into sexual relationships, with further possible consequences in terms of teenage pregnancy, dropping out of school, and risk of infectious disease.

The present research explores how leaving school children unsupervised in villages for several months when their parents are away exposes these children to risky sexual behaviors and practices. The chapter considers the relationships between these risky behaviours and food insecurity, and how specific coping strategies are adopted. My findings are presented under three main themes: a discussion of freedom and sexual behaviours, survival sex as a means of coping with food insecurity, and the impact of group sleeping arrangements on sexual behaviour.

5.2 Freedom, spaces, games and sexual behaviours

The findings of the present study show that when parents are living in the villages, children's autonomy is constrained by parents who enforce boundaries of time and space. Dusk time activities and places are mapped out, monitored and controlled by parents. The findings further revealed that parents also control the types of games played by children, visits to video houses and types of programs watched by their children. In contrast, when parents are away, the findings show that children are much freer and have little adult control over their use of time and space. For instance when parents are in the village, children go to bed between 8:30 and 9pm shortly after supper while when their parents are away children normally go to sleep between 10pm and 1am. Figures 7 and 8). The findings show that before going to bed most children spend these times outdoors in playing spaces and some girls and boys use these times to meet sexual partners as shown in the following exchange:

Interviewer: 'You said you have a boy-friend'?

Vumilia: 'Yes'

Interviewer: 'You said you have sex with him'?

Vumilia: (nodding head, accepting)

Interviewer: 'Many times or rarely'?

Vumilia: 'Many times'

Interviewer: 'When parents are in the village or away'?

Vumilia: 'When parents are away'

Interviewer: 'Why'?

Vumilia: 'Because when they are here they do not allow us to play outdoors at night'
(Vumilia, 12yr old girl, Kidugalo)

Some children spend the night at their sexual partner's home as the following example illustrates:

'I started a relationship with him when I was in grade six. It was difficult to meet with him when my parents were in the village, but when my parents were in shamba (family farm) I was free to sleep at his house' (Agnes 16yr old girl, she was expelled from school in 2010 because of pregnancy. She has been in self-care since she was 10years old., Iragua village)

When parents are away children therefore challenge the limits and boundaries which are otherwise enforced by their parents. In contrast, when parents are present in the village they attempt to shape and control their children's behaviours by restricting their autonomy. It is also worth noting that children's spatial boundaries are highly gendered, where girls' spaces and time appeared to be more restricted than those of boys particularly around dusk times.

When living with their children, parents also control the types of games their children are playing. Children reported that their parents allow them to play football, 'ready' (a game similar to netball) and sitting activities in open spaces (like storytelling), but that they are strict in not allowing them to play games like 'hide and seek' which involves the use of more secluded spaces such as unfinished buildings, bushes, toilets etc. However, my findings confirm that the children particularly like to play 'hide and seek' when their parents are away, as illustrated by one boy:

' Yes we normally play hide and seek when parents are in shamba (family farm). It is impossible to play hide and seek when they are here....they don't allow...but it is so common when they are not here (*Musa 15yr old boy , Iragua*)

A number of children referred to experiencing sexual encounters during hide and seek games, as follows:

'..... boys like to have sex when hiding, and I normally stop playing and return back home when boys request to have sex when hiding'(*Eliza,13yr old girl, Iragua*)

.....'I would not say that I have a specific girlfriend but I normally have sex with girls when playing hide and seek' (*Sipi14 yr old boy, Kidugalo*)

'....My parents do not allow me to play hide and seek because they fear that I will get pregnant....you know girls here have sex with boys during hide and seek when hiding' (*Sauda 15yr old girl, Iragua*)

During informal interviews both with Iragua and Kidugalo children participants talked about how sexual encounters also occurred as they undertake their daily responsibilities for example on their way to the river or to collect firewood. Practicing safer sex through the use of condoms is difficult in these circumstances and in this way girls are vulnerable to sexually transmitted diseases (STDs) and pregnancy. Boys are also vulnerable to STDs when they have relationships with girls who may themselves have multiple partners (in particular older men). Some sexual encounters which participants referred to included attempts of rape as illustrated in the following extract:

'I remember one day I was seeking them...I went to the toilet I found a boy who was naked... I was so surprised why he was naked! He said that he want to have sex with me... I didn't accept... then he attempted to rape me... I shouted loudly...(mentioned a name) and other children were around, they ran quickly to help me...' (*Eliza, 13 yr old girl, Iragua*)

Studies have revealed that there are numerous factors influencing the sexual behaviour of adolescents including the need to experiment, peer influence and the lack of guidance (Lugalla and Mbwambo 1999, Kempadoo and Dunn 2001, Nyanzi et al. 2001). As has been noted in Chapter 2 adolescence is a key period of sexual exploration and development when individuals begin to consider which sexual behaviours are enjoyable, moral and appropriate for their age group (Collins et al. 2004). Fieldman et al(2002) argued that adolescence is a time of self-discovery, both physically, as well as in terms of cognitive development and it is in this context that adolescent sexual development and sexual behaviour occurs. Curiosity, a desire to experiment, pressure from peers or even forced sex might be reasons for adolescents to become involved in sexual practices. My findings revealed that the absence of parents means that freedom for children in self-care directly enhances their vulnerability to sexual behaviours.

'Video houses, form a common type of entertainment in the villages. These are buildings owned by villagers who have a television which is used to show videos for which people pay money. Some of the videos include pornography and viewing by younger people is restricted when parents are in the villages. Control over video shows was not always strictly applied, however, as referred to by one teacher:

'I remember when I came here video houses were blamed [for] allow[ing] children to watch videos to 2-3am... parents and the school committee met with video house owners and told them that they would prefer that shows finish at 6pm... but I can tell you neither children nor video houses are after this kind of restriction... the sexual content is also there I know children are sleeping there when parents are away [laughs]' (*A male teacher, Iragua primary school*).

Most children confirmed that they watch different kinds of videos, however, including those with sexual content, both pornography and videos which depicted love stories and sexual relationships, as shown in the following focus group exchange:

Interviewer: 'At what time do you normally come back home [from video shows]'?

Group: 'At 12am'.

Maria: 'It depends... with the long videos some may take more time... up to 1am'.

Interviewer: 'Which types of videos do you normally watch'?

Maria: 'Boxing, life stories'.

Group: 'Soccer'.

Leah: 'Comedy'.

Maria and Sauda: 'X-videos'

Interviewer: '... do they show X-videos to children?'

Group: 'Yes they do'.

When asked about how they manage to pay for attendance at video houses, most children said that they work in paid labour and some girls depend on their sexual partners to pay for them. Parents were concerned about the prospect of children seeing videos with sexual content as well as children going to video houses as a pretext for meeting with their sexual partner. In the focus group discussions parents from both villages blamed video houses for what they perceive to be decaying moral standards among young people by showing children pornography, as illustrated by one parent:

‘ ... one thing which contributed to that problem [increased pregnancies in 2004] was increased video shows with sexual contents... we thought that our children learn sexual behavior through that... we came up with new strategies to limit video owners not only on showing pornography but [also] we said it is strictly prohibited for school children to be at a video show after 8pm... I can say now these two things are no longer a problem in our village’ (*middle-aged male parent, Iragua village*)

The above findings show that village governments and parents have tried to intervene on the timing and types of videos shown to their children, but other adults and the video owners do not follow these rules. Parents’ wishes to ban X-rated videos have not been achieved, and this may reflect the power which video house owners have as wealthy people in the village. Staying up late watching television has considerable impact on children’s studies and also has potential direct health impacts, including exposure to mosquito bites which increases their risk to malaria (see Chapter 6).

5.3 Food insecurity and survival sex

Children in Kilombero valley are left in the villages to care for themselves in the period which was referred by villagers as ‘kipindi kigumu sana’ (‘very stressful and difficult period due to hunger and lack of cash). The rainy season and hence the main cultivation period which occurs

between February and June, is considered to be a period of high vulnerability for the farming population because of recurring food insecurity (empty stocks before harvest), labour stress due to intensive work on farms, poor access to family support due to remoteness of the farms and little time for child care (Hetzl et al. 2008). Minja et al (2001) found the availability of money in Kilombero valley villages to be seasonal and restricted to the time when subsistence produce is sold during the dry season. The rainy season is also the period of 'self-care' arrangements in farming households where children are left alone to take care of themselves. It was therefore important to explore how children manage their day-to-day basic needs including food during this difficult period. Findings indicate that during the rainy season children and their parents depend on working as agricultural labourers to obtain cash in order to buy food and other basic needs. Information collected from children, teachers, parents and key informants show that children, either individually or accompanying their parents, spend weekends working on other people's farms in order to get cash. Ideally the cash obtained from wages is expected to sustain the family (both household members who are at the farm and children in the villages) for the following week, and it is the responsibility of the older child (whether a boy or a girl) to make sure the food and money is available for sustaining their life in the village on all school days (Monday to Friday). However information collected from focus group discussions with parents and key informants shows that in reality money obtained from wage labour during the weekend is not sufficient to sustain the whole family for the whole week. Indeed, during interviews with children, it was revealed food obtained from paid labour lasts only for a maximum of three days, and that they have to go to the farms again to work in order to get cash. As noted earlier school absenteeism is common during this period because of this need for children to work. It was also revealed that insufficient amounts of food and money obtained during weekends also result in

some young people engaging in sexual activities, as indicated in the following exchange between two parents:

‘...for instance you give a girl of 15 years old a little money to sustain her and her sibling... what do you expect when the money [is] finished? How could 1000 Shillings sustain them for whole week?’ (Adult female parent Kidugalo village).

‘ (interrupting the former speaker) ...and the problem [is] they don’t want to come back to the farms during school days when the food is finished. Instead they prefer to budget the money as they can... which is impossible. Therefore at the end of the day they engage in sex.’ (Adult male parent Kidugalo village)

Teachers similarly expressed concerns about the increasing responsibilities of students when parents are away by shouldering the obligation of ensuring food availability in the household; they too made references to teenagers engaging in sexual activities in return for money, as shown by the following two quotations:

‘Often they get insufficient food to sustain them for the whole week, that’s why they engage in prostitution, we always get the problem of pregnancies from older girlsbecause older girls are supposed to take care of themselves and their siblings, buying food, soap...look at that girl (pointing finger to a girl approximately 12 yr old) she is taking care of her two siblings, can you imagine? How does she manage?’ (*a female teacher, Kidugalo primary school*)

‘...parents do not provide basic things to children like soap, kerosene, enough food... some girls cannot think that they have to work to get money... instead they keep their eyes on men around the village in order to get 500 Shillings to buy soap etc’ (*a male teacher, Iragua primary school*)

The above extracts suggest that parents are unable to provide adequately for their children’s needs. Narratives from girls reflect how a lack of food acts as a catalyst for engaging in sex for money or food:

‘One day the food was finished before Friday and I tried to ask my parents to send us food as soon as they receive my message but they didn’t respond. My younger sister was crying asking me to give her food...a man who showed interest in me before, he gave me 1000 Shillings... I bought maize flour, kerosene and matches... in the night he came ask to me that you need to pay back my money...I didn’t have money to pay him (long pause). That’s how we start our relationship ... believe me if my parents would not leave us without money and food I would not do that.’ (*Agnes Iragua*)

‘parents leave us without *posho* (food ration or money) ... if you sleep with men they give you money or food in exchange’ (*Jema 15yr old girl Kidugalo*)

‘ I don’t think that girls like to have sex with men but problems...exercise books, *posho* (food) and sometimes parents can say we don’t have money to give... go back home and ask neighbours to give you foodThen if girls were told that by parents and then they meet men who are interested they easily accept to have sex...because it is impossible for neighbour to give you food during this period (period of hunger)’ (*Eliza 13yr old girl Iragua*)

Participants stated that relationships between girls and older men are common and, although none admitted to being involved in such relationships, most were quick to point out that they have friends or know other younger girls who engage in such relationships.

Participants commented in interview show the majority of the men who are involved in these sexual acts are usually men who are in temporary employment such as in road construction or working for the local teak company, or are itinerant men passing through villages, as the following examples illustrate:

‘In this village there is teak company. Men who work there they use this opportunity [of] hunger to have sexual relationships in exchange for food and other basic needs particularly with girls whose parents are at their *shamba*’ [family farm]’ (*A male teacher, Kidugalo primary school*)

‘Most of the time these are people (sexual partners) who are working in teak company, road and bridge constructions’ (*Sesi 13yr old, Kidugalo*).

Girls therefore engage in ‘survival sex’ with older partners who can afford to offer money or gifts although one teacher commented on younger boys also providing food for girlfriends:

‘The main problem for boys here is truancy, you know they have to work in paid labour for themselves to get money for videos houses, food and for their girl friends, so you can imagine time spent in income generating activities’ (*female teacher, Kidugalo primary school*)

The terms ‘prostitution’, ‘sex work’ and ‘survival sex’ have, at times, been used interchangeably in the academic literature, but more often to mean various forms of transactional sex (Leclerc-Madala 2003). Transactional sex has been used by different scholars to describe situation where young women engage in sexual relations with older men when sex is used strategically for survival, to get money, material items (food and clothing) and to obtain desirable consumer goods (eg cell phones, perfumes). It is said to be a very common form of sexual behaviour in sub-Saharan Africa where a gift or money may be seen as symbolizing the love and respect a man feels for his partner and the importance he places on the relationship. In contrast, ‘giving away’ sex can stigmatize young women as “loose” and lacking in “self-respect” (USAID).

The term ‘survival sex’ is more frequently used where the exchange does not necessarily involve a straightforward exchange such as through cash and where the exchange is not pursued on a professional basis, but is seen as a consequence of poverty and economic dependency (Muir 1991). I have chosen to employ the term survival sex in this thesis and define that to mean the exchange of sex for food, money, and other needs and wants such as protection/safeness.

My findings demonstrate that food insecurity and lack of money for other basic needs force some girls to engage in survival sex. Limited support from parents in this period seems to drive girls to

engage in sexual relationships in order to secure money to make ends meet. Participants' extracts show that in the absence of parents older men use girls' financial vulnerability. Other things which may motivate older men to engage in sexual relationships with young girls include low cost, perceived less likelihood of infection with HIV/AIDS (as discussed in Chapter 2) and low social and economic status placing them in a weak bargaining position to insist on safer sex or a higher fee. Young girls may therefore be satisfied with simple gifts of small amounts of money to buy food compared to adult women who may need money as capital to start a business, or to pay for children's school fees.

The majority of respondents in this study, particularly parents and school teachers, spoke about the risks of pregnancies associated with survival sex. Teenage pregnancy was reported to be common in these villages and often resulted into school-drop outs. Participants also noted that many girls who become pregnant are abandoned by their sexual partners as most married men are unwilling to support children born into other relationships. When a boy is responsible for the pregnancy the common behaviour is to deny responsibility in order to avoid consequences such as being expelled from school, or being sued.

Most participants give little consideration to the risks children faced in acquiring STIs (sexually transmitted infections) and HIV, though in many ways the material exchange for sex, particularly between older men and young girls probably increased the risk of transmission of HIV and other diseases in several ways. First, having to satisfy a survival need (food) reduces the girls' bargaining power to practise safer sex. They are also usually having sex with itinerant men who are likely to have had many sexual partners, and thus more likely to transmit HIV and STIs. Girls in the village may assume that foreigners are possibly financially better off than local

people, and the girls may not understand their partners' sexual histories and inaccurately assess the risk that accompanies such relationships.

Although the findings indicate that adults /parents disapprove of such relationships it seems that there is also a subtle acceptance by parents of the girls' behaviours e.g. not appearing at the shamba as expected for collection of food or financial assistance as the following example revealed:

'It is hard to imagine how these children survive when the food is finished! For example often when they come to shamba during the weekend her younger brother told us that 'the food was finished during the week days but my sister proceeded with food purchase' mmmh! We ask ourselves (with his wife) where and how this girl got the money to buy food? While she didn't come to the shamba for a fresh food supply? We presume that she gets money possibly from men' (*Adult male parent, Focus Group Discussion Iragua*).

Some girls said that they often tell their families that they have taken a casual job to make ends meet. Some said that their parents do not ask them where they get money and so they remain silent.

5.4 Sleeping arrangements

Sleeping arrangements emerged as an important aspect of children's exposure to sexual behaviour when parents are away at their farms. It appears that many children who are in self-care often resort to sleeping in groups as an important strategy against possible attack by robbers and rapists at night as shown in the following extract:

'I remember last year I was with my sister... our parents were not here... Then [I] felt like somebody was touching my belly... I asked "Who are you and why are you touching me?" He replied "Keep quiet. If you shout I will kill you". Ooh we shouted loudly! He ran away' (*Johari 14 year old girl, Kidugalo Village*).

Because of feelings of insecurity many children therefore preferred to sleep in groups. The findings revealed that these groups are not only providing them companionship but also serve as support and protection from certain kinds of violence. Sleeping in groups, however, also seems to expose children to sexual activity. Girls are more vulnerable than boys because boys within the group, including relatives, often request to have sex with them even when a girl indicates that she does not want a sexual relationship with the boy. A boy can continue to pressure her through bullying or intimidation. The findings show that girls felt a sense of desperation with the situation as illustrated in the following extracts:

'I sleep with my cousin's brothers but they normally ask me to have sex with them, I do not agree but they keep pressing me to accept their request....' (*Eliza, 13yr old girl Iragua*)

'We were thirteen children in one room, boys and girls. Boys were sleeping on the floor and we were sleeping in the bed. Though those boys were our relatives they often ask us to have sex with them...'*(Leah 12yr old girl Iragua)*.

Eliza's and Leah's examples reveal how group sleeping can place girls at risk of sexual exploitation and pressure. Under self-care arrangements boys are aware that there are no parents to appeal to for defense and protection. In this case, a young girl can be forced to engage in sexual activity in return for the security obtained from the group.

The findings revealed that some boys were also not comfortable with group sleeping arrangements because they could be blamed if girls became pregnant, and also some boys are

trying to protect their sisters which they can do better in their own homes as the following quotations demonstrate:

'I remember one girl in our group got pregnant. Her parents insisted that [names of two older boys] were responsible... we tried to tell them that their daughter had relationships with older men in the village... but they didn't listen to us... I'm really worried about this when I will get older' (*Hamisi 14 year old boy Iragua village*).

'I don't think sleeping in groups is a good idea because girls can get pregnant and that will be a problem. That's why when an older boy asks me to sleep in their house I'm afraid for my sister, I think he may love her that's why he wants us to sleep there...you know it's better to sleep in our home... if a boy comes I will notice when he opens the door but how could I know about my sister if we are sleeping in group? I don't support this kind of arrangement' (*Sipi, 14yr old boy Kidugalo*)

In the focus group discussions with adults in Iragua village participants commented on how their children could be influenced by their peers that desirable things such as soap, food, could be obtained as gifts from sexual partners.

'I remember when my daughter slept in the family house, I would say she didn't have bad behaviour as far as I knew...but when I started to leave her with grade seven girls suddenly she changed...she was involved in sexual affairs' (Middle aged male parent)

A female participant: (interrupting) :..... 'She has already learned from others eeh! (Adult female participant)

Male parent continues: 'I was annoyed...she returned to sleep home, I noticed that she learnt from those girl who are used to sexual behaviour....you know they see other girls sleep with men in the house and in the following day, the girl (who slept with the man) can have soap, cooking oil and money to spend...when they ask those girls to share with themthey may not accept some decent girls would think..why am I living with problems when I can get all these things so easily'

Woman: 'Yaah that may influence other children to have sexual practices'

This observation was supported by girls who sleep in groups:

'Sometimes older girls were not sleeping with us [in a room while they sleep in a group] when they don't have money to spend...they go to have sex with men, when they came back in the morning they normally have money, food....when we ask them where they were in the night ...they would give very bad answer...we keep quiet' (*Leah 12yr old ,Iragua*)

Generally then self-care arrangements increase vulnerability of children, especially girls, to sexual behaviours as most sleep in groups with no adult supervision and so are free to experiment with sex.

5.5 Summary of key findings

The results of the present study show that children who are in self-care are vulnerable to sexual behaviours when their parents are away at their farms compared to when parents are in the village. The argument of this chapter is that girls and boys are forced into finding their own ways to pay for their food and other basic needs which has consequences for their health and well-being. I argue that self-care arrangements enhance the vulnerability of children in three ways: First, it provides opportunities for children to experiment with sex or to engage in sexual practices through a lack of parental constraints. It appeared in my study that when parents are in the village they supervise and control their children's behaviors and their use of time and different spaces. But while parents are away children have greater freedom and as a result regularly spend night-time hours in what may be considered to be 'risky spaces' such as video houses, and playing 'hide and seek' in unfinished buildings, and bushes. Other studies in the USA, Kenya and Tanzania have reported how sexual behaviours among adolescents are influenced by opportunity particularly when they are not supervised by adults (Cohen et al. 2002) (Leshabari and Kaaya 1997) and (Romer et al. 1999). Secondly, my study demonstrates that young girls are forced to find their own way to pay for basic needs including food for themselves and other household members. This includes the need to engage in 'survival sex' as a coping strategy. Other studies have reported on how, in low income families, limited support from parents can influence adolescent girls to engage in sexual behaviours. (Leshabari and Kaaya 1997, Lugalla and Mbwambo 1999, Nyanzi et al. 2001, Longfield et al. 2004).

My findings revealed that both older men and some boys use money to negotiate sexual relationships with girls. Thirdly, self-care enhances feelings of loneliness and fear and, as a result, children, both girls and boys, resort to sleeping in groups for security. This can, however, have undesired consequences for girls' vulnerability because of sexual harassment from boys who sleep in the groups with them., Similar findings have been reported by Lugalla et al (1999) and (Anarfi 1997) but for street children in Tanzania and Ghana, respectively. 'Early' pregnancies among adolescent girls were reported on frequently and their consequences in terms of education and abandonment by their sexual partners. Self-care arrangements have also been explored in this study in terms of the potential links to environmental health of school-aged children and the final results chapter considers risk behaviours in relation to malaria. Relatively little research has been conducted on malaria risk behaviours among this age group and the present study sought to fill some of this gap.

Chapter 6: Children's vulnerability to malaria

6.1 Introduction

The success of many tropical disease control programmes including malaria is closely intertwined with human behaviour (Mwenesi et al. 1995). The cornerstones of malaria control in Tanzania and other endemic countries in Africa in reducing people's vulnerability to the disease have been early diagnosis and prompt treatment of cases, case management and the use of insecticide-treated nets (ITNs) (Ministry of Health 2006). But diverse behavioural or demographic reasons have been given for the non-use of ITNs including changes in sleeping place, perceptions of mosquito densities, socializing activities in the late evening, and age (D'Alessandro et al. 1994, Allai et al. 2003, Mugisha and Arinatwe 2003, Frey et al. 2006, Baume and Marin 2008, Dunn et al. 2010). In previous research (Dunn, le Mare and Makungu 2011) I have considered how decision making on the use of the bed-net is embedded in adult livelihoods and socio-cultural practices. The present study has uncovered a number of behaviours, circumstances and decision making related to non-usage of bed nets among children who are in self-care. Bed-net usage is related to the disruption of sleeping patterns due to farming related movements and lack of provision of bed-nets by parents to their children left in the village, often because parents perceived lower mosquito densities in the village home than at the farming site. Non-usage of the bed-net was specifically related to changes in sleeping practices and places through group sleeping ('sleeping in groups'; see also section 5.4). Malaria

risk behaviours were also identified in terms of delay in seeking treatment. It was also noted in my study that in the absence of parental care, a child's access to malaria treatment is impeded by the long distance to the nearest point of care, inability to pay for drugs (free drugs are provided only to children under the age of five years) or secondary costs such as transport. Barriers to prompt access to effective malaria treatment have been indicated by other studies in Africa including distance, travel costs and cost of services, and long and bureaucratic procedures at public health facilities (Hetzl et al. 2007, Orbit et al. 2007, Chuma et al. 2010). Discussion of this theme will be presented under three sub-themes: malaria risk behaviors which are related to non-usage of bed-nets due to disruption of sleeping patterns; exposure to mosquito bites; and delays in seeking treatment.

6.2 Non-usage of the bed-net

The findings of the present study indicate that parental movement to the field sites for farming disrupts the normal sleeping patterns in the household resulting in lower usage of bed-nets among children left in villages. It was noted that when parents are in the village both schoolchildren and their older siblings (*who have already completed school but are not yet married*) share beds or mats and therefore also bed nets. The findings shows that older children who stay with parents at the farming site receive first priority for using nets because of a perception of higher mosquito densities at farming sites than in the villages. Thus parents do not provide bed-nets for children left in villages as they perceive that mosquito densities in the village is low. The focus group discussion with girls in Kidugalo village illustrates their use of bed nets according to whether or not parents are present in the village:

Interviewer: 'When parents are away do you sleep under bed nets?'

Group: 'No we don't use bed net'

Interviewer: 'Why don't you sleep under a bed net?'

Group: 'They take them to the shamba because there are many mosquitoes'

Interviewer: 'Do you use them when parents are back in the village?'

Group: 'Yes we use them'

Interviewer: 'So you are saying that in the village there are no mosquitoes?'

Group: 'No there are mosquitoes also in the village'

Similarly, one-to-one in-depth interviews revealed views about differing bed net use at farms and in villages as illustrated by two participants:

'We don't use a bednet when parents are away because they [her parents] said that there is no mosquitoes in the village... we can only use them when we sleep at the shamba during the weekend... but there are also mosquitoes in the village... and we also get sick' (*Halima, 14 year old girl, Kidugalo*)

'...normally people who are at the shamba are given priority on using bed nets, therefore their older siblings are using nets there, the nets which are normally shared together with their younger siblings while they are in the village' (*Male teacher, Kidugalo village*).

These examples indicate how limited bed net ownership calls for decisions on priority of usage of available nets in the household. These findings are embedded in a number of wider issues relating to poverty and understandings of malaria. Firstly, poor people with large families may lack cash to buy enough bed nets for all members of the household. This may also be interwoven with the seasonality of cash since, as noted earlier, availability of money in Kilombero valley is restricted to times when produce is sold during the dry season. In this period sleeping patterns are more 'stable' as all family members sleep in the village house. In contrast during the rainy seasons people lack produce to sell, mosquitoes are plenty and sleeping

arrangements are disrupted. Secondly, The above extracts indicate that villagers believe there to be greater numbers of mosquitoes at the field sites than there are in the village and this appears to be a significant reason why people do not use bed nets in the villages. This could reflect the view that the risk of disease is directly proportional to the increase of the mosquito population. But, the quotations also show that the presence of mosquitoes is also felt in village homes, and children living in self-care without bed nets are therefore at risk of malaria. Thirdly, a key reason for using bed nets seems to be related to the nuisance of the mosquito rather than as protection against malaria. High mosquito density means more nuisance and vice versa. Throughout the study in these two villages in informal settings and in the interviews it was common to hear that ‘there is no way you can sleep in the field sites without bed nets, you can’t get a sleep’.

Other, more specific, reasons were also uncovered for lack of bed net usage amongst children . Thus in Iragua village one mother did not allow her children to use bed nets when they are not under her supervision as explained by her son:

‘No we do not use nets because our mother doesn’t allow us to use a new bed net which is in her room. She warned us not to use it because she thinks that if we do we will damage it. She normally takes the old one to the shamba and keeps a new one in a bag in her room. When she comes back she would give us the old one and she would use the new one. We are suffering from mosquito bites when she is away’ (*Twali 12yroid boy, Kidugalo*)

This extract suggests that some people may view bed nets not primarily or only as a protective measure against malaria, but rather as a valued possession to be maintained. Ownership of bed nets may therefore not exactly mirror their usage and this may have important public health awareness implications e.g. for parents to be aware of the vulnerability of school-aged children to malaria, as reflected on by one teacher:

‘Yes children are exposed to mosquito bites because they don’t understand the importance of bed nets for instance when they sleep in groups they never take bed nets particularly if they sleep with children who do not have nets....parental supervision on using nets - I think it is vital’ (a female teacher, Iragua primary school)

The findings of this study also revealed that sleeping in groups (as noted earlier in Chapter 5) as a strategy for personal security also limits the use of bed nets in two ways. First, the majority of the children within the group do not have bed nets, but the fact that mosquitoes are still active in the village means that children prefer to sleep under a bed net, and so crowd under the nets of those children who do have a net. One girl reported not taking her bed net when sleeping in groups to avoid such discomfort:

‘...in our room we were five girls. I didn’t use my net because some parents are stingy... they don’t want to buy their children a bednet... therefore when you take your net all children will strive to sleep with you... I didn’t like that... it was better [to] sleep without a net’ (Eliza 13yr old girl, Iragua).

Secondly, some practical problems were reported by some children, such as it being difficult to ‘spread the net over the temporary bed made by bricks and dried grasses’. According to these children with this kind of ‘bed’ it is not feasible to spread out the net as is done in a normal bed. Even if a normal bed were available it would not be practical to shift beds to the places where children sleep in groups, so they often construct makeshift beds by using bricks and grass when they sleep in groups as explained by one girl:

‘When I sleep in a group I don’t use my bed -net because of the bed we were using... it’s not a normal bed [laughs]... it is made by bricks and grasses... how could I hang the net?’ (Leah 12 yr old girl, Iragua).

6.3 Children's outdoor activities during dusk times

It has been argued that Anopheles mosquitoes bite at night (with the peak in the middle of night) and malaria transmission occurring at these times (Killeen et al. 2006). My findings demonstrate that outdoor activities at dusk such as watching television, videos or when children are playing games may expose them to malaria. As noted in the timeline exercises when parents are away, school children go to bed between 10pm and 1am, much later than when parents are in the village. Thus, in the absence of parents children are free to play around the village until late without protection from mosquito bites. The impact of lack of parental/adult supervision on children and the risk of exposure was noted by teachers as the following extract indicates:

' I would say children are exposed to mosquitoes bites due to outdoor playing...because their parents are away...so they go to bed very late but also because of limited bed nets in poor families' (a *male teacher, Kidugalo primary school*)

These findings indicate how school-aged children are reliant on their parents to enforce sleeping times and to provide adequate protective measures to prevent malaria infection. The findings also show that children of this age receive the lowest priority in terms of using bed nets compared to other members of the household. During in-depth interviews some children commented on how even when parents are in the village they do not sleep under bed nets because of the limited number of nets owned by the household. According to these children it is younger children who share the bed with their parents who usually sleep under bed nets. This response points to a potential need for additional malaria prevention campaigns, which currently focus on vulnerable groups such as pregnant women and children under five. Indeed, Lalloo et al (2006) argued how current campaigns increase school-aged children's vulnerability to malaria morbidity and mortality.

The findings from my study show that malaria incidence is common among school children and often resulted in absence from school. Thus in individual interviews children often reported that they had been sick with malaria during the farming period when parents are away. It is important to be cautious when asking about malaria incidences, however, since in endemic areas general fever symptoms may often be attributed to malaria sometimes without confirmation by microscopy or exclusion of other causes. Therefore during the interviews when children explained that they were sick from malaria, they were asked to explain why they think that they had malaria and not another disease, along with a discussion of the drugs they used for the illness.

6.4 Delays in seeking treatment

Prompt treatment with effective anti-malaria drugs is considered the most important method of preventing death from malaria (McCombe 2002). The Roll Back Malaria (RBM) partnership set 2010 as a target for ensuring that 80 percent of those suffering from malaria are diagnosed and treated with effective medicine within one day of the onset of illness (RBM 2005). Findings from in-depth interviews with children show that the common pattern of treatment-seeking among school children when they become sick was to try pain killers first and to go to the family's farm to inform their parents if their symptoms did not improve. All children in this study reported waiting for their parents before starting treatment, except one boy from Iragua village who reported going to the dispensary when he or his younger brother was sick. Access to prompt treatment also was a key concern of parents and teachers, as illustrated in the following discussion in Kidugalo village:

'The biggest challenge for us and children when we are away is disease... imagine I'm staying 12 kilometres from the village, therefore to get information about my children's illness early is impossible. That involves someone to walk all the way to the field site to inform me, and also I have to walk all the way back to the village ...the time lost between these events can make the child's condition worse....you know even if the illness is curable it might progress to death' (*Adult male Kidugalo village*).

: (interrupted) 'particularly if he/she has malaria mmmh it's dangerous' (*young female respondent*)

Male respondent continues:

'For sure when we are in the field we keep on praying for our children... fortunately my village home is close to teachers (primary school) so they can take my children to the dispensary when they are sick...I would say I'm lucky' (*an adult male respondent*)

A teacher in Iragua had similar comments:

'When children become sick this period is risky...you know someone has to go to the field to inform parents....so they can come back to the village to seek treatment for a child...therefore there is normally a delay for treatment which allows the disease to progress to severe...particularly this period (rainy season)...everyday children are sick from malaria and prompt access to treatment is not there. I would say it's a great risk' (*a female teacher, Iragua primary school*)

These findings show that local people understand the risk related to delaying effective treatment for malaria. The present study shows that the spatial distance from the field sites to the villages and health facilities may therefore substantially increase the risk to school children of severe malaria and its fatal consequences. The absence of parents and distance to the field sites were frequently mentioned as major factors which lead to delay in treatment. But there other factors which also may hinder children from making use of health facilities, for example the difficulty in children being able to cope with official procedures at health centres without the assistance of their parents. These procedures include registration, paying a nominal hospital charge and going through the required procedural routines before getting medical attention. In addition there will

be difficulties in covering the cost of reaching a health facility in the absence of parents. Prompt treatment of malaria also depends on recognition of early symptoms. Semi-immune school-aged children may present only a mild fever due to parasitemia, but if left untreated this can develop into severe malaria leading to mortality. Children may underestimate the medical seriousness of untreated fever and are therefore reliant upon parents to recognize these early symptoms. Finally a child may lack the necessary understanding needed to complete the entire course of drugs without the supervision of a parent.

6.5 Summary of key findings

This research has uncovered how self-care arrangements impact on children's vulnerability to malaria. The main argument of this chapter is that self-care children face considerable risk of malaria due to infrequent use of bed nets, increased exposure to mosquito bites and delays in seeking medical treatment. My findings demonstrate that the shifting nature of sleeping patterns due to rural livelihood activities coupled with perceptions of mosquito densities act as barriers to regular use of bed nets. Such practices and beliefs militate against the consistent use of nets. It has been argued that the success of bed-nets as malaria prevention tools depends on their regular and proper use (Lengeler et al. 2007) but such usage is not characteristic of the communities in the study villages. The lack of provision of bed nets by parents for children left behind in the village is influenced by their views relating to different mosquito densities whereby densities in the village are perceived to be lower than at the farming sites. Similar findings have been reported in other studies in Tanzania, Eritrea and Gambia that perceptions that mosquitoes are

not present influence people's usage of bed nets (D'Alessandro et al. 1994, Winch et al. 1994, Macintyre et al. 2006).

Furthermore my findings demonstrate that group sleeping practices make it inappropriate or impractical to use a bed net. In addition increased freedom when parents are away potentially exposes children to mosquito bites since they engage in social activities including watching television, chatting and playing in outdoor spaces at night without protection. Thus, my study demonstrates that different social circumstances result in the non use of the bed net; for example group sleeping is not children's choice but rather they are forced to undertake this practice as a means of coping with feelings of insecurity and fear. And this limits the use of the bed net. This kind of situation calls for different types of public health policy based on local people's needs in terms of malaria prevention. In common with other studies (e.g. Franckel and Lalou 2009; Mwenesi et al 1995), my study also highlights how parental roles are crucial in accessing health treatment for children In the next chapter, the concluding chapter, I bring together my ideas about how the different themes from my findings all link together.

Chapter 7 Conclusions

7.1 Introduction

The purpose of the final chapter is to bring together key ideas and themes in this thesis and to discuss how the main themes regarding the experiences and the impacts of self-care arrangements among school-aged children are inter-related. This chapter will begin with a brief summary of the study undertaken before moving on to a discussion of relevant concepts which emerged as part of the study. Building on this, the chapter closes by identifying future areas of research.

7.2 Summary of the study

As was stated in Chapter 1 the overall aim of this study was to explore the impacts of self-care arrangements for the health and well-being of school-aged children living in rural spaces in southern Tanzania. More specifically the study sought to understand the experiences of children in relation to their roles and responsibilities, and their vulnerability and risks in relation to both sexual well-being and environmental health (malaria). The empirical research on two villages located in the Kilombero valley: Iragua and Kidugalo and involved young people of primary school age. Two of the primary schools in the area were directly involved in the study as was outlined in Chapter 3. Other research participants were parents of children who are in self-care situations, primary school teachers and key informants including elders, and village and ward leaders. As was discussed in Chapter 3 a range of qualitative methods including focus group

discussions and group exercises, semi-structured in-depth interviews, participant observation and informal interviews were used to address the following research questions:

What are the roles and responsibilities of children living in situations of self-care?

How do self-care arrangements affect children's health and well being?

How does self-care affect children's school performance?

What coping mechanisms are adopted in relation to food insecurity?

What are the wider community perceptions of children being left alone unsupervised?

7.3 Making links to poverty

In Tanzania generally the poor people in rural villages possess little or no land, selling rather than buying labour due to season food insecurity and have few or non-farm self-employment options and have little or no formal education (Ellis and Mdoe 2003). In the Kilombero valley households experience shortages of farming land due to recent population increases. The two villages which formed the focus of the present research are poor villages, typical of those in other parts of rural Tanzania. The key results of this study show that a self-care arrangement for older children is commonly practiced in families who come from low-income farming households in these villages. This practice arises from a lack of choice for parents who have no other option than to stay overnight at their shambas for extended periods of time, leaving their children alone in the village to cope with both domestic tasks in the household and their normal schooling. The findings from this study show that these people often face recurrent food insecurity particularly during the farming period and depend on selling their labour due to these

seasonal food shortages. For decades, poverty has been defined by economists in terms of the income level of a person falling below a certain threshold necessary to meet basic needs (Chambers 1995, Bhuiya et al. 2007). Thus poverty is said to exist when some persons in the society have so little income that they cannot satisfy socially defined basic needs (Kakwani 2006). This type of definition has been used for purposes of comparison of groups and regions, and often for assessing progress or backsliding within poverty and development (Chambers 1995). This income based approach to poverty analysis has, however, been challenged on the grounds that low income and low consumption below some minimal standard is only one face of poverty (Chambers 1995, Calvo 2005, Kakwani 2006, Bhuiya et al. 2007). An alternative perspective argues instead that poverty is multidimensional; it is rarely a lack of one thing. This view recognizes that people can suffer acute deprivation in many aspects of life, beyond those defined as basic needs, even if they possess an adequate command over commodities (Kakwani 2006). The 2010 United Nations Development Programme Human Development Report introduces new international measures of poverty which complement income-based measures by reflecting the multiple deprivations that people face at the same time (Alkire and Santos 2010). The Multidimensional Poverty Index reflects the deprivations that a poor person faces all at once with respect to education, health and living standards. In this approach poverty is assessed at the individual level with the poor being those who are multiply deprived and the extent of poverty being measured by the range of their deprivations. It has been suggested that the Multidimensional Poverty Index approach can be used as an analytical tool to identify the most vulnerable people, showing aspects in which they are deprived and helping to reveal the interconnections among deprivations (Alkire and Santos 2010). The approach recognizes that poverty is the result of economic, political and social processes that interact with each other and

frequently reinforce each other in ways that exacerbate the deprivation of poor people's lives (Bhuiya et al. 2007). This approach forms a useful framework for understanding the impacts of self-care arrangements on school-aged children's health and well-being in Kilombero valley.

I therefore argue in this thesis that self-care arrangements are highly embedded in poverty in the study villages, and that the persistence of poverty is linked to its multidimensionality involving not only low income but also lack of education, poor access to land and basic infrastructure such as roads, and poor health.

Poverty in the study villages is associated not only with lack of land, but also with lack of non-farm alternatives against diminishing farm opportunities. Therefore as people's income reduces, poverty reduces their ability to invest in their children in terms of education and health. Self-care arrangements are linked particularly to a lack of fertile farming land in the vicinity of the village. In coping with this situation, some parents are forced, through lack of choice, to adopt self-care arrangements for their children in order to allow them to attend school. Inherent in such arrangements, however, is significant non-attendance at school, school dropout and ill-health since children are consequently trying to cope with adult responsibilities in the household.

As the findings show, the school time table and domestic tasks are largely mutually incompatible. As children attempt to cope with adult domestic responsibilities and the school time table by skipping meals, their poor nutritional consumption may increase their vulnerability to poor health which in turn may affect their school attendance and education performance. Self-care children also may not attend school because of the need to do paid labour as a coping strategy for food insecurity, and when they need to take care of someone who is sick.

Chambers (1995) asserted that vulnerability is not the same as income-poverty. For him, it means exposure and defenselessness. He argued that vulnerability has two sides: the external side to shock, stress and risk and the internal side of defenselessness, meaning lack of the means to cope without damaging loss. In this sense, the children in my study were adopting different strategies to cope with food insecurity including, for older girls, 'survival sex'. Sexual behaviour does not only affect children's school performance but also, for some, resulted in pregnancy resulting in school dropout. Children who are in self-care also experienced feelings of fear and loneliness and this finding supports other studies documented in the literature (Long and Long 1983, Lugalla and Mbwambo 1999, Ruiz-Casares 2010). Lugalla and Mbwambo (1999) reported on street girls coping with feelings of fear and insecurity by sleeping together with boys for protection, and my study found a similar practice. However, I have shown how this behaviour both exposes children to risky sexual practices and to increased vulnerability to malaria when bednets are not used for protection against mosquito bites. In turn, being sick from malaria affects children's school performance and attendance.

Therefore despite parents' good intentions for their children to receive school education by leaving them in the villages several factors combine to make this problematic. Apart from income poverty and seasonality of food security other dimensions of poverty experienced by these households are isolation and powerlessness. My findings indicate that households are geographically isolated with shambas (farms) and some of the main houses in remote locations. This impact on communication and access to health services. In terms of powerlessness the study's findings show how villagers failed to intervene on the time and type of videos shown to their children by people in the villages despite their efforts to ban X-rated videos through the village government. As Chambers (2005) suggests poor people may lack power to influence

significant changes in their existing situation even if they might be anxious to do so. As a result they are subjected to the power of others and they are easy to ignore and exploit (Chambers 1995). The next section will provide a discussion of how the different themes which emerged from my empirical data link together. This helps to provide an understanding of all deprivations that simultaneously impact children who are living in self-care.

7.4 Integrating the three empirical themes

When left alone to take care of themselves, children undertook a range of activities within and beyond the household to look after themselves and their siblings. Household responsibilities can be categorized under the headings of income generation activities, which involve paid labour, household chores, and household management which includes budgeting and decision-making. Other responsibilities include caring duties which involve helping their younger siblings to get ready for school, taking care of a sick person in the household, community engagement such as seeking support from neighbours, and personal care. The lives and experiences of self-care children appeared to be very difficult, and different coping strategies are adopted by these children in juggling school attendance and livelihood and psychological demands (feelings of fear and insecurity). The main self-care period also coincides with times of food shortages and scarcity of money. Different coping strategies were discussed by the children themselves, and the parents and teachers who participated in this study, including skipping meals, paid labour and sex for survival.

The practice of skipping meals not only acts as coping strategy for food insecurity but also as a means of avoiding punishment from teachers due to late arrival at school. Children reported on how, when parents are present in the villages, they have three meals each day but when in self-care, they normally have only one or two full meals. The Kilombero valley is a highly malaria

endemic area in Tanzania. As noted by Hetzel (2008) malaria transmission, fever incidence and mortality in the Kilombero's valley communities shows seasonal variations with a peak during the rainy season; this coincides with the main farming period and therefore time of self-care. Risky behaviours such as the non-use of bed nets, spending night hours outdoors playing, and watching television without using protection against mosquito bites increases children's vulnerability to malaria. The occurrence of malaria in a self-care situation itself brings further problems in these households. Firstly, if an older child is sick she/he will be unable to carry out household tasks and other responsibilities and this can affect younger siblings in the household. Secondly if the sick person is another household member who depends on a sibling the older child who is expected to provide care has to stay at home. Thirdly, malaria treatments are often delayed as children depend on parents for health care payment, and transport to the health facility. Therefore being sick in this the self-care period not only exposes children to the potentially fatal consequences of malaria and to poor school performance but it also brings difficulties to younger siblings who depend on their older sisters and brothers.

As noted earlier, children particularly older girls, assumed their parents' responsibilities of taking care of the family including insuring that food and other basic needs are available in the household. With these responsibilities and inadequate support from their parents, girls use sex as a means of earning because of a lack of alternative means of surviving. The results of my study show that many girls are involved in sexual relationships with older men in the villages particularly itinerant petty traders and migrant workers. The findings show that sexual relationships between young girls and men expose young girls to health problems associated with earlier pregnancy and sexually transmitted diseases including HIV/AIDS. Epidemiological studies in Tanzania have shown that young girls are among the most at-risk groups in terms of

HIV/AIDS, particularly when having sex with older men (TACAIDS 2007). Their vulnerability of exposure to HIV/AIDS and other sexually transmitted diseases is enhanced because they engage in sexual relationships with a mobile population. The incidences of pregnancy in the study villages suggest that young girls practice unsafe sex. Studies of the relationships between older men and young girls in sub-Saharan Africa suggest that for socio-cultural and economic reasons, most of the time young girls are unable to negotiate for safe sex through condom use (Lugalla and Mbwambo 1999, Longfield et al. 2004, TACAIDS 2007, Wamoyi et al. 2010).

School girls who become pregnant face official school expulsion and because these girls do not usually return to school to complete their education after the birth of the child their opportunities for socio-economic advancement are limited.

Thus the results of my study show how the coping strategies around food, school and household management are not really their choice but are effectively forced on children through links relating poverty and livelihoods.

7.5 Conclusion

Self-care arrangements among school-aged children pose extreme challenges in the farming households in Kilombero valley. Living alone in the villages during the period which is characterized by food shortages, money scarcity and high malaria transmission forced girls and older children to adopt coping strategies including working in paid labour, survival sex, group sleeping and missing meals. These strategies are embedded in wider issues relating to the multidimensional nature of poverty. All these coping strategies both limit children's ability to gain education and have a detrimental impact on their overall health and well-being. There is lack of research on self-care amongst school aged-children living in rural settings in sub-Saharan

Africa, My research has helped to address the gap in the literature on children's experience of taking care of themselves in these settings due to livelihood demands on parents. There is, however, a need for further research on the social and cultural dimensions of self-care arrangements amongst communities in environments such as the Kilombero valley. Further work is needed to explore in greater depth the views, attitudes and perceptions of the key stakeholders including not only children themselves but also others in village communities including government authorities.

8.0 Bibliography

Abebe, T. 2010. Beyond the 'Orphan Burden': Understanding Care for and by AIDS-affected Children in Africa. *Geography Compass* 4/5: 460-474.

Admissie, A. 2003. Child labour and schooling in the context of a subsistence rural economy: can they be compatible? *International Journal of Education and Development* 23: 167-185.

Afenyafu, G. Y., I. A. Agyepong, G. Barnish, and S. Adjei. 2005. Improving access to early treatment of malaria: a trial with primary school teachers as care provider. *Tropical Medicine and International Health* 10: 1065-1072.

Aizer, A. 2004. Home alone: Supervision after school hours and child behavior. *Journal of Public Economics* 88: 1835-1848.

Alba, S., A. Dillip, I. Mayumana, C. Mshana, M. A. Makemba, M. Alexander, B. Orbit, A. Schulze, H. Mshinda, F. Kessy, and C. Lengeler. 2010. Improvement in access to malaria treatment in Tanzania following community retail sector and health facility intervention -a user perspective. *Malaria Journal* 163: 1-47.

Albertyn, S. A., V. Bickler, W. Miller, and H. Rode. 2003. The effects of war on children in Africa. *Pediatric Surgery International* 19: 227-232.

Alkire, S., and M. A. Santos. 2010. *Multidimensional Poverty Index: Oxford Poverty and Human Development Initiative.* Queen Elizabeth Home, University of Oxford.

Allai, J. A., W. A. Hawley, M. Kolczak, A. Oloo, B. L. Nahlem, and P. A. Phillips-Howard. 2003. Factors Affecting Use of Permethrin-Treated Bed Nets During a Randomized Controlled Trial in Western Kenya. *The American Society of Tropical Medicine and Hygiene* 68: 137-141.

Anarfi, J. K. 1997. Vulnerability to sexual transmitted disease: street children in Accra. *Health Transition Review* 7: 281-306.

Armstrong Schellenburg, J., S. Abdulla, R. Nathan, O. Mukasa, N. Kikumbih, A. K.

Mushi, H. Mponda, H. Minja, H. Mshinda, M. Tanner, and C. Lengeler. 2001. Effect of large-scale marketing of insecticide-treated nets on child survival in rural Tanzania. *Lancet* 357: 1241-47.

Baume, C., and M. Marin. 2008. Intra-household Mosquito Net Use in Ethiopia, Ghana, Mali, Nigeria, Senegal and Zambia: Are Nets Being Used? Who in the Household Uses Them? *The American Journal Tropical Medicine Hygiene* 77: 963-971.

Bedford, T., and J. Burgess. 2001. "The focus group-experience, in Limb M, and Dwyer, C (eds), *Qualitative methods for Geographers: Issues and debates* (London:Arnold).

Bhuiya, A., S. S. Mahmood, A. K. M. Rana Masud, T. Wahed, M. S. Ahmed, A.

Mushtaque, and R. Chowdhury. 2007. A Multidimensional Approach to Measure Poverty in Rural Bangladesh. *Health Population Nutrition* 25: 134-145.

Blair, S. 1992a. The sex typing of children's household labor: Parental Influence on Daughters' and Sons' housework. *Youth & Society* 24: 178-203.

Blair, S. L. 1992b. Children's Participation in Household Labor: Child Socialization Versus the Need for Household Labor. *Journal of Youth and Adolescence* 21.

Blerk Van , L., and N. Ansell. 2004. 'Children's migration as an household/family strategy: coping with AIDS in Lesotho and Malawi'. *Journal of Southern African studies* 30: 673-690.

Blerk Van , L., N. Ansell, E. Robson, F. Hadju, and L. Chipeta. 2008. Youth, AIDS and Rural Livelihoods in Southern Africa. *Geography Compass* 10: 709-729.

Brandom, P. 1999. Determinants of Self- Care Arrangements among School-Age Children. *Children and Youth Services Review* 21: 497-520.

Brooker, S., S. Clarke, R. Snow, and D. Bundy. 2008. Malaria in Africa schoolchildren: options for control. *Royal Society of Tropical Medicine and Hygiene* 102: 304-305.

Brooker, S., H. Guyatt, J. Omumbo, R. Shreta, L. Draker, and Ouma.J. 2000. Situational Anaysis of Malaria in School-aged Children in Kenya " What Can Be Done". *Parasitology Today* 16: 183-185.

Bryman, A. 1984. The Debate about Quantitative and Qualitative Research: A Question of Methods or Epistemology. *The British Journal of Sociology* 35: 75-92.

Calvo, C. 2005. Multidimensional of Poverty in a Risky Environment Peru, 1998-2002, The many dimension of poverty Brasilia, Brazil.

Chambers, R. 1995. Poverty and Livelihoods: Whose reality counts? *Environment and Urbanization* 7: 173-204.

Chuma, J., V. Okungu, and C. Molyneux. 2010. Barriers to prompt and effective malaria treatment among the poorest population in Kenya. *Malaria Journal* 9: 1-14.

Cohen, D. T., S. N. Taylor, D. H. Martin, and M. A. Schuster. 2002. When and Where Do Youth Have Sex? The Potential Role of Adult Supervision. *Pediatrics* 110: 1-6.

Colcough, C., R. Pauline, and M. Temboni. 2000. Gender inequalities in primary schooling: The roles of poverty and adverse cultural practice. *International Journal of Education and Development* 20: 5-27.

Cole, C., and H. Rodman. 1987. When School-Age Children Care for Themselves: Issues for Family Life Educators and Parents. *Family Relations* 36: 92-96.

Colge, L., and G. Tasker. 1982. Children and Housework. *Family Relations* 31: 395-399.

Collins, R., M. N. Elliott, S. H. Berry, D. E. Kanouse, S. Kunkel, B., and A. Miu. 2004. Watching Sex on Television Predicts Adolescent Initiation of Sexual Behavior. *Pediatrics* 114: 280-289.

Conradson, D. 2005. 'Focus groups' in Flowerdew, R and Martin, D (eds). *Methods in Human Geography, A guide for students doing a research project* (Second edn: Harlow: Pearson Prentice Hall), 128-48.

Cook, I. 2005. Participant Observation: Flowerdew, R & Martin, D (Eds). Pearson Education Limited.

D'Alessandro, U., M. Aikins, P. Langerock, S. Bennet, and B. Greenwood. 1994. Nationwide survey of bednet use in rural Gambia. *Bulletin of the World Health Organization* 72: 391-394.

Darbyshire, P., C. MacDougall, and W. Schiller. 2005. Multiple methods in qualitative research with children: more insight or just more? *Qualitative Research* 5: 417-436.

Dehne, K. L., and R. Gabriele. 2001. Adolescence: A Dynamic Concept. *Reproductive Health Matters* 9: 11-15.

Dunn, C. E. 2010. Participatory natural resource management and health inequities in Africa : Final Progress Report. National Institutes of Health.

Dunn, C. E., A. e Mare, and C. Makungu. 2011. Malaria risk behaviours, socio-cultural practices and rural livelihoods in Southern Tanzania: Implications for bed net usage. *Social Science & Medicine* 72: 408-417.

Dunn CE, Killeen G, Thomas C, van den Berg H, Le Mare A, Mulamula L, Alexander M, Nathan, R (n.d). Participatory natural resource management to mitigate health inequalities in Kilombero Valley, Tanzania, poster presented to Institute of Hazard, Risk and Resilience, Durham University, May 2008

Dwyer, K. M., J. L. Richardson, K. L. Danley, W. B. Hansen, Y. Sussan, B. Brannon, C. W.

Dent, C. A. Johnson, and B. R. Hay. 1990. Characteristics of Eighth-Grade Students Who Initiate Self Care in Elementary and Junior High School. *Pediatrics* 86: 448-454.

Ellis, F., and E. Mdoe. 2003. Livelihoods and Rural Poverty Reduction in Tanzania. *World Development* 31: 1367-1384.

England, K. V. L. 1994. Getting Personal: Reflexivity, Positionality and Feminist Research. *The Professional Geographer* 46: 80-89.

Evans, R. 2010. The experience and priorities of young people who care for their siblings in Tanzania and Uganda, pp. 1-22. University of Reading.

- Fieldman, J., and A. B. Middleman. 2002.** Adolescent Sexuality and Sexual Behaviour. Current opinion in Obstetrics and Gynaecology 14: 489-493.
- Franckel, A., and R. Lalou. 2009.** Health-seeking behavior for childhood malaria: household dynamics in rural Senegal. Journal of Biosocial Science 41: 1-19.
- Frey, C., C. Traore, M. Allegri, B. Kouyate, and O. Muller. 2006.** Compliance of young children with ITNs protection in rural Burkina Faso. Malaria Journal 5.
- Futoshi, K. 2007.** Development of major Rice Cultivation Area in the Kilombero Valley, Tanzania. African Study Monographs 36: 3-18.
- Gibbs, A. 1997.** 'Focus Groups', social Research update (19) 1-7
<<http://www.soc.surrey.ac.uk/sru/SRU/19.html> accessed 11/4/2011.
- Goodnow, J., and S. Delaney. 1989.** Children's Household Work: Task Differences, Styles of Assignment, and Links to Family Relationships. Journal of Applied Development Psychology 10: 209-226.
- Gyapong, M., J. Gyapong, J. Amakwa, J. Asedem, and E. Sory. 1996.** Introducing insecticide impregnated bednets in an area of low bednet usage: an exploratory study in north-east Ghana. Tropical Medicine and International Health 1: 328-333.
- Hemming, P. J. 2008.** Mixing qualitative research methods in children's geographies. Area 40: 152-162.
- Hetzel, M. W., S. Alba, M. Fankhauser, I. Mayumana, C. Lengeler, B. Obrist, R. Nathan, M. A. Makemba, C. Mshana, A. Schulze, and H. Mshinda. 2008.** Malaria risk and access to

prevention and treatment in the paddies of the Kilombero Valley, Tanzania. *Malaria Journal* 7: 1-13.

Hetzel, M. W., N. Iteba, M. A. Makemba, C. Mshana, C. Lengeler, O. Brigit, A. Schulze, A. Dillip, A. Sandra, I. Mayumana, K. Rashid, N. Joseph, and H. Msinda. 2007. Understanding and improving access to prompt and effective malaria treatment and care in rural Tanzania: The ACCESS Programme. *Malaria Journal* 6: 83.

Isinika, C., G. C. Ashimogo, and J. E. D. Mlangwa. 2003. Africa in transition: Macro study Tanzania Final research report, Morogoro: Tanzania.

Kakwani, N. 2006. What is poverty? United Nations Development Programme, Brasilia; Accessed 3/04/2011.

Kangalawe, R., and E. Liwenga. 2005. Livelihoods in the Kilombero valley in Tanzania: Opportunities and challenges to integrated water resource management. *Physics and chemistry of the earth* 30: 968-975.

Kempadoo, K., and L. Dunn. 2001. Factors that Shape the Initiation of Early Sexual Activity Among Adolescent Boys and Girls UNICEF and UNFPA.

Kerrobrock, N., and E. Lewit. 1999. Children in Self-Care. *The Future of Children* 9: 151-159.

Killeen, G. F., J. Kihonda, E. Lyimo, F. R. Oketch, M. E. Kotas, Mathenge, E., J. A.

Schellenberg, C. Lengeler, T. Smith, and C. Drakeley. 2006. Quantifying behavioral interactions between humans and mosquitoes: Evaluating the protective efficacy of insecticidal nets against malarial transmission in rural Tanzania. *BMC Infectious Disease* 6.

Klavs, I., H. A. Rodrigues, and R. Hayes. 2006. Factors associated with early sexual debut in Slovenia: Results of general population survey. *Sex Transmission Infections* 82: 478-483.

Koda, B. 2000. Democratisation of social relations at the household level: the participation of children and youth in Tanzania, in C.Creighton and C.K. Omari (eds) *Gender, Family and Work in Tanzania*, . Ashgate:237-65.

Laloo, D., G. P. Olukaya, and P. Olliaro. 2006. Malaria in adolescence: burden of disease, consequences, and opportunities for intervention. *Lancet Infectious Disease* 6: 780-793.

Leclerc-Madala. 2003. Transactional sex and the pursuit of modernity *Social Dynamics* 29: 213-233.

Lengeler, C., M. Grabowsky, D. McGuire, and D. deSavigny. 2007. Quick wins versus sustainability:options for the upscaling of insecticide-treated nets. *American Journal of Tropical Medicine and Hygiene* 77: 222-226.

Leshabari, M., and S. F. Kaaya. 1997. Bridging the information gap: sexual maturity and reproductive health problems among youth in Tanzania. *Health Transition Review, Supplement* 3 7: 29-44.

Leung, K. C., W. Lane, E. M. Robson, H. Cho, and S. H. N. Lim. 1996. *Latchkey Children*. Royal Society for the Promotion of Health 116: 356-359.

Long, T. J., and L. Long. 1983. *Latchkey Children* . Norwood,NJ,Ablex Publishing Corporation, Washington,DC.

- Longfield, K., A. Glink, M. Wathaika, and J. Berman. 2004.** Relationships between Older Men and Younger Women: Implications for STIs/HIV in Kenya. *Studies in Family Planning* 35: 125-134.
- Longhurst, R. 2003.** 'Semi structured Interviews and Focus Groups', in Clifford, N and Valentine, G. (Eds), *Key Methods in Geography* (London: Sage) 117-32.
- Lugalla, J. L. P., and J. K. Mbwambo. 1999.** *Street Children and Street Life in Urban Tanzania: The Culture of Surviving and its Implications for Children's Health.* Blackwell Publishers Ltd, Oxford.
- Luke, N. 2003.** Age and Economic Asymmetries in the Sexual Relationships of Adolescent Girls in Sub-Saharan Africa. *Studies in Family Planning* 34: 67-87.
- Mabala, R., and S. Kamazima. 1995.** *The Girl Child in Tanzania: Today's Girl Tomorrow's Woman,* United Nations Children's Fund, Dar es Salaam.
- Macintyre, K., J. Keating, B. Yohannes, Okbaldt, M. Zerom, S. Sosler, Ghebremeskel, and T. P. Eisele. 2006.** Rolling out insecticide treated nets in Eritrea: examining the determinants of possession and use in malarious zones during the rainy season. *Tropical Medicine and International Health* 11: 824-833.
- Magnussen, P., B. Ndawi, A. Sheshe, J. Byskov, and K. Mbwana. 2001.** Malaria diagnosis and treatment administered by teachers in primary schools in Tanzania. *Tropical Medicine and International Health* 6: 273-279.
- Mahon, A., and C. Glendinning. 1996.** *Researching Children: Methods and Ethics.* *Children and Society* 10: 145-154.

Matthew, H., M. Limb, and M. Taylor. 1998. The Geography of Children: some ethical and methodological considerations for project and dissertation work. *Journal of Geography in Higher Education* 22: 311-324.

Mauthner, M. 1997. Methodology aspects of collecting data from children: Lessons from three research projects. *Children and Society* 11: 16-28.

Mayumana, I. 2007. Malaria Case Management in the light of rural livelihood and vulnerabilities: The case of Kilombero District Unpublished MA Thesis University of Dar es salaam.

McCall, M. 1987. "Carrying heavier burdens but carrying less weight: some implications of villagization for women in Tanzania" In *Geography of Gender in the Third World*: Momsen, J.H, Townsend, G.J (eds) 111-124 Hutchinson NY : Sunny Press.

McCombe, S. 2002. Self-treatment for malaria: the evidence and methodological issues. *Health Policy and Planning* 17: 333-344.

Mgalla, Z., D. Schapink, and J. T. Boerma. 1998. Protecting School Girls against Sexual Exploitation: A Guardian Programme in Mwanza Tanzania. *Reproductive Health Matters* 6: 19-30.

Miller, C. 2002. Family Influence on Adolescent Sexual and Contraceptive. *The Journal of Sex Research* 39: 22-26.

Ministry of Health. 2006. Annual Health Statistical Abstract. Ministry of Health and Social Welfare, Dar es Salaam, United Republic of Tanzania.

- Minja, H. 2001.** Introducing Insecticide Treated Mosquito Nets in the Kilombero Valley Tanzania: Social cultural dimension, Unpublished PhD thesis. University of Basel.
- Minja, H., A. Schellenberg, O. Mukasa, R. Nathan, S. Abdulla, H. Mponda, M. Tanner, and B. Obrist. 2001.** Introducing Insecticide-Treated nets in the Kilombero Valley, Tanzania: The relevance of local knowledge and practices for an Information, Education and Communication (IEC) campaign. *Tropical Medicine and International Health* 6: 614-623.
- Mugisha, F., and J. Arinatwe. 2003.** Sleeping arrangements and mosquito net use among under-fives: result from the Uganda Demographic and Health Survey. *Malaria Journal* 2.
- Muir, M. 1991.** The environmental context of AIDS. New York: Praeger Publishers.
- Mukangara, F., and B. Koda. 1996.** Beyond inequalities: Women in Tanzania. Tanzania Gender Networking Programme & SARDC-WIDSAA, Dar es Salaam & Harare.
- Mwenesi, H., T. Harpham, and R. Snow. 1995.** Child malaria treatment practices among mothers in Kenya. *Social Science Medicine* 40: 1271-1277.
- Nyanzi, S., R. Pool, and J. Kisman. 2001.** The negotiation of sexual relationships among school pupils in south- western Uganda. *AIDS Care* 13: 83-98.
- Olaniyi, J., J. Ekundayo, Stall-Doson, Roofe.M, I. B. Alan, L. Bachman, M. Kempf, C, Ehiri.J, and P. Joly, E. 2007.** The Determinants of Sexual Intercourse Before Age 16 Years Among Rural Jamaica Adolescents. *The Scientific World Journal* 7: 493-503.
- Orbit, B., N. Iteba, C. Lengeler, M. A. Makemba, C. Mshana, R. Nathan, S. Alba, A. Dillip, M. W. Hetzel, I. Mayumana, A. Schulze, and H. Mshinda. 2007.** Access to Health Care in

Contexts of Livelihood Insecurity: A Framework for Analysis and Action. *PloS Medicine* 4: 1584-1588.

Osgood, D., J. Wilson, M. O'Malley, J. Bachman, and D. Llyod. 1996. Routine activities and individual deviant behavior. *American Sociological Review* 61: 635-655.

Pain, R. 2004. Social geography: participatory research. *Progress in Human Geography* 28,5: 652-663.

Parker, L. 2004. Qualitative research: Steane, P & Burton, L (Eds). Routledge, Canada.

Pasha, O., D. Rosso, M. Mukaka, and D. Marsh. 2003. The effects of providing fansidar (sulfadoxine-pyrimethimine) in schools on mortality in school-age children in Malaria. *The Lancet* 361: 577-578.

Punch, K. 2005. Introduction to social research: Quantitative and Qualitative approaches.

Punch, S. 2001a. 'Multiple Methods and Research Relations with Young People in Rural Bolivia in Limb, M and Dwyer, C (Eds) *Qualitative Methodologies for Geographers*, London: Arnold, pp.165-180.

Punch, S. 2001b. 'Household Division of Labour: Generation, Gender, Age, Birth order and Sibling Composition'. *Work, Employment & Society* 15: 803-823.

Punch, S. 2002a. Research with children: The same or different from research with adults? SAGE publication, London 9 (3): 321-341.

Punch, S. 2002b. Research with children: The same or different from research with adults? *Childhood* 9: 321-341.

- RBM. 2005.** Global Strategic Plan: Roll Back Malaria 2005-2015. Geneva: Roll Back Malaria Partnership 2005, Geneva.
- Robson, E. 2004.** Children at work in rural Northern Nigeria: patterns of age, space and gender. *Journal of Rural Studies* 20: 193-210.
- Roche, K. M., J. Ellen, and N. M. Astone. 2005.** Effects of Out-of-School Care on Sex Initiation Among Young Adolescents in Low-Income Central City Neighborhoods. *Archives of Pediatrics & Adolescent Medicine* 159: 68-73.
- Romer, D., B. Stanton, J. Galbraith, S. Feigelman, M. M. Black, and L. Xiaoming. 1999.** Parental Influence on Adolescent Sexual Behavior in High-Poverty Settings. *Arch Pediatr Adolesc Med* 153: 1055-1062.
- Ruiz-Casares, M. 2010.** Between Freedom and Fear: Children's Views on Home Alone. *British Journal of Social Work*: 1-18.
- Ruiz-Casares, M., and J. Heymann. 2009.** Children home alone unsupervised: Modeling parental decision and factors in Botswana, Mexico and Vietnam. *Child Abuse & Neglect* 33: 312-323.
- Rupatsisikira, E., A. Ogwel, E.O, S. Siziya, and S. Muula. 2007.** Prevalence of Sexual Intercourse Among School Going Children Adolescents in Coast Province , Kenya. *Tanzania Health Research Bulletin* 9: 159-163.
- Smith, T. E. 1984.** School-Grades, and Responsibility for Younger Siblings: An Empirical Study of the 'Teaching Functions' *American Sociological Review* 49: 248-260.

Steelman, L. C., and C. Brody. 1985. Sibling Structure and Parental Sex-typing of Children's Household Tasks. *Journal of Marriage and the Family* 47: 265-273.

TACAIDS. 2007. Situational Analysis. Tanzania Commission for AIDS, Dar-es-Salaam.

Tami, A., J. Mbatia, R. Nathan, H. Mponda, C. Lengeler, and A. Schellenberg. 2006. Use and Misuse of discount voucher scheme as a subsidy for insecticide-treated net for malaria control in Southern Tanzania. *Health Policy and Planning* 21: 1-19.

Throne, B. 1993. *Gender Play: Girls and Boys in School*. Buckingham: Open University Press.

Udonwa, E., A. Gyuse, and A. Etokidem. 2010. Malaria: Knowledge and prevention practices among school adolescents in a Coastal Community in Calabar Nigeria. *African Journal of Primary Health Care & Family Medicine* 2: 1-4.

USAID. Transactional and Age-disparate Sex in Hyperendemic Countries; Accessed 18/04/2011.

Valentine, G. 2005. Tell me about....Using interviews as a research methodology in Flowerdew, R & Martin, D (Eds), *Methods in Human Geography: A guide for students during a research project*. Pearson Education Limited.

Vandel, D., L., and L. Shumow. 1999. After-school child care programs. *The Future of Children* 9: 64-80.

Mwakalinga, V. University of the Witwatersrand (personal communication)

Wamoyi, J., D. Wight, M. Plummer, G. H. Mshana, and D. Ross. 2010. Transactional sex amongst young people in rural northern Tanzania: an ethnography of young women's motivations and negotiation. *Reproductive Health* 7: 1-18.

WHO. 1998. The second decade: improving adolescent health and development. Adolescent Health and Development Programme brochure.

WHO. 1999. Roll Back Malaria.

Wight, D., M. Plummer, G. Mshana, J. Wamoyi, J. Shigongo, and D. Ross. 2006. Contradictory sexual norms and expectations for young people in rural Northern Tanzania. *Social Science Medicine* 62: 987-997.

Winch, J. P., M. A. Makemba, S. Kamazima, G. Lwihula, P. Lubega, J. N. Minjas, and J. C. Shiff. 1994. Seasonal Variation in the perceived risk of Malaria: Implications for the promotion of Insecticide-Impregnated Bed-Nets *Social Science Medicine* 39: 63-75.

Wiseman, V., A. Scott, B. Mcelroy, L. Conteh, and W. Steven. 2007. Determinants of Bed net use in the Gambia: Implications for Malaria Control. *The American Society of Tropical Medicine and Hygiene* 76: 830-836.

Zurovac, D., M. Ndhlovu, N. Sipilanyambe, P. Chanda, H. D. Hamer, L. J. Simon, and R. Snow. 2007. Paediatric Malaria case-management with artemether-lumefantrine in Zambia: a report of repeat cross-sectional study. *Malaria Journal* 6.

Zurovac, D., J. K. Tibenderana, J. Nankabirwa, J. Ssekitooleko, N. J. Njogu, A. Talisuna, and R. W. Snow. 2008. Malaria case-management under artemether-lumefantrine treatment policy in Uganda. *Malaria Journal* 7.

9.0 Appendices

Attachment 1: Interview schedule

<p>The introduction days at Kidugalo village</p> <ul style="list-style-type: none"> - I introduced myself to teachers, pupils and village leaders - Identification of self-care children - I took them through an expository session of what my study is about - Verbal consent from children was obtained - I wrote letters to parents inviting them to participate in the focus group discussion and to ask them for consent about their children participation in the study 	1 days
<p>Preparation for meeting with parents in Kidugalo village</p> <ul style="list-style-type: none"> - Preparation of the venue - Preparation of materials for focus group discussion and consent forms <p>I did informal interview with the ward councilor</p>	1 day
<p>Meeting with parents in Kidugalo village</p> <ul style="list-style-type: none"> - Obtained parents consents (written consents) - I conducted focus group discussion with parents 	1 day
<p>Interview with Kidugalo boys (pupils)</p> <ul style="list-style-type: none"> - I conducted focus group discussion and timeline activity 	1 day
<p>Interview with Kidugalo girls (pupils)</p> <ul style="list-style-type: none"> - I conducted focus group discussion and timeline activity 	1 day
<p>I conducted one to one in-depth interviews with two boys in Kidugalo school</p> <p>Observation on the time which children in self-care arrive at school</p>	1 day
<p>I did in-depth one to one in-depth interview at Kidugalo school with</p> <ul style="list-style-type: none"> - 1 school teacher - 2 school girls <p>Preparation for key informants meeting in Kidugalo village</p> <ul style="list-style-type: none"> - Identification of participants with village leaders and school teachers - Invitations letters for focus group discussion - Preparation for the meeting venue - Observation on the time which children in self-care arrive at school 	1 day

Focus group discussion with key informants	1 day
2 household visits	
One to one in-depth interviews with Kidugalo pupil <ul style="list-style-type: none"> - 2 interviews with girls - One interview with boy Observation in beer clubs Informal interviews with boys	1 day
One to one in-depth interviews at Kidugalo school <ul style="list-style-type: none"> - 2 girls - 1 boy - 1 teacher - 2 household visits 	1 day
One to one in-depth interviews at Kidugalo school <ul style="list-style-type: none"> - 2 girls - Informal interviews with girls - 1 household visit 	1 day
The introduction days at Iragua village <ul style="list-style-type: none"> - I introduced myself to teachers, pupils and village leaders - Identification of self-care children - I took them through an expository session of what my study is about - Verbal consent from children was obtained - I wrote letters to parents inviting them to participate in the focus group discussion and to ask them for consent about their children participation in the study - Informal interviews with Iragua teachers Video house observation at kidugalo village	1 day
Diagramming activities with boys and girls at Kidugalo school	1 day
Meeting with Iragua parents <ul style="list-style-type: none"> - Obtained parents consents (written consents) - I conducted focus group discussion with parents 	1 day
Focus group discussion and timeline with Iragua girls One to one in-depth interview with teacher	1 day
Focus group discussion and timeline with Iragua boys One to one in-depth interview two boys	1 day
One to one in-depth interviews with 2 girls One to one in-depth interview with teacher	1 day
Diagramming activities with boys and girls at Iragua school Preparation for focus group discussion with key informants <ul style="list-style-type: none"> - Identification of participants - Invitation - Informal interviews with girls and boys 	1 day

Focus group discussion with key informants One to one in-depth interview with 2 girl	1 day
One to one in-depth interview with three boys One to one in-depth interview with teacher	1 day
One to one interviews with 1girl Informal interview with girls and boys	1 day

Attachment 2: Interview topic guides

Question guide for semi-structured in-depth interviews with school children

Interviewee information: *Name, gender, class, age*

A: Opening questions: Family information, role and responsibilities

- 2) Tell me about your family-(people who are normally stay in the household)
- 3) Tell me a typical day for you –how do you spend your time on different activities throughout the day when parents are away?
- 4) Do these roles and responsibilities change when parents are in the village? Why
- 5) What are the main challenges posed by these roles and responsibilities when parents are away? How do you try to deal with these challenges?
- 6) Do these household’s roles affect your attendance in school? How
- 7) Do you get enough time for studies?

B: Daily/weekly activities

- 1) What do you normally do during the evening when parents are away?
- 2) Where do you normally like to go at these times when parents are away? With whom?
- 3) Do you normally do these activities at these times when parents are in the village?

C: Health/Malaria

- 1) At what time do you normally go to bed when parents are away?
- 2) Do you normally sleep under bed net when parents are away?
- 4) At what time do you normally sleep when parents are in the village /do you normally sleep under bed net when parents are in the village?

D: Nutrition

- 1) How many meals and types do you normally take when parents are away?
- 2) Do these meals patterns and types change when parents are in the village? why

E: Food insecurity

- 1) Does food normally available when parents are away?
- 2) Where/how do normally you get food when parents are away?
- 3) Does food availability challenge to you when parents are away? How
- 4) What do you think about self care arrangement?

Semi-structured in-depth interviews with teacher: topic guide

Personal information: Name, Gender, how long worked in the school

A) Open questions:

- 1) Tell me about role and responsibilities in your job here?
- 2) How are school children affected when their parents are away at shamba? Are these impacts different for boys and girls?
- 3) Does lack of parental supervision affects children school attendance? how

How does self care arrangement affect children performance? Can you give me examples?

B) Children behaviour

1) Do you think lack of parental supervision affects children behaviour around the village? Why?

Can you give examples?

2) Do boys and girls affected in the same way? How

3) How do you deal with these issues? Can you give me specific example?

C) Malaria

1) Do you think lack of parental care and supervision expose children to Malaria infection? Why

D) Nutrition

What do you think about types and meals pattern of children when in self care?

Do you think these meal patterns and types change when parents are in the village?

E) Food insecurity

1) What do you think about availability of food to school children when parents are away?

2) Where/How children get food when parents are away?

3) How do these affects children? How

4) What do you think the future hold for improving care to school children during the farming period? How optimistic are you? Why? Why not?

Focus group discussion with key informants and parents (village leaders, elders and religion leaders) - Topic guide

- 1) Why people stay in the field sites during the farming period? Apart from staying in the field sites, are there any other reasons which might force people to leave children alone in the village?
- 2) How long do parents normally stay there? Who is normally accompanying them?
- 3) Who is taking care for school children who are left in villages when parents are away?
- 4) What do you think about self care in school children in this village?
- 5) Does it affect boys and girls differently?
- 6) What do you think are specific challenges which school children face when parent are away?
Can you give specific examples?
- 7) How are they dealing with these challenges?
- 8) What are the community responses towards these issues?
- 9) What do you think the future hold for improving care to school children when parents are away? How optimistic are you? Why? Why not?