

CHILDCARE ARRANGEMENTS MADE IN  
MAINA VILLAGE: IMPLICATIONS FOR CHILD  
DEVELOPMENT

BY

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## DECLARATION

This thesis is my original work and has not been presented for a degree in any other university.

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## DEDICATION

To my parents Simon and Mary Gichuru and the children from Maina village who greatly touched me. Chi-Ndege, Mungai, Annie, Ken, John, Watheri, Wangari and Esther.

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## ABBREVIATIONS AND ACRONYMS

- CBS - Central Bureau of Statistics.
- CWSK - Child Welfare Society of Kenya.
- NACECE - National Centre for Early Childhood Education.
- NICHD - National Institute of Child Health and Human  
Development.
- UNDP - United Nations Development Fund.

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## ABSTRACT

Childcare is necessary if a child is to survive, grow and develop. Childcare has primarily been provided by mothers with support from members of the extended family and older siblings. However social and economic changes occurring over the years, affected the ability of family members to provide childcare. Different childcare arrangements were thus made to cope with these constraints. These changes in arrangements expose children to different caregivers, activities and environments and have implications on child development, especially in the early years of childhood when rapid development of intelligence, personality and social behaviour occurs. Although childcare arrangements are important for child development, studies in the third world are deficient in information and analysis of their implications on development. This study set out to determine the childcare arrangements made by families and the implications these had on child development. A descriptive survey design with both quantitative and qualitative methods of data collection and analysis was used. Data were collected through questionnaires from a random sample of 75 families from Maina village, a slum in the environs of Nyahururu town. Observations were then made for a sub-sample of five families drawn from the main sample. Data were analysed for childcare arrangements, reasons for choice of childcare arrangements and relationships between selected demographic variables and childcare arrangements. Childcare activities and environments were also analysed for their bearing on child development. The findings revealed that the major (71%) childcare arrangement was maternal care. Other arrangements were the nursery school, childcare support by siblings and extended family members. Results on reasons for the choice of childcare arrangements indicated that non-availability of other caregivers, the compatibility of mother's occupations with childcare and mothers preference to undertake childcare of their infants contributed to the prevalence of maternal care. The demographic factors that influenced the choice of childcare arrangements were mothers and children's age. There were positive implications for child development in maternal care due to caregiving activities that fostered adequate physical growth, development of security and trust, vocalization and cognitive development, motor skills and social behaviour. The nursery school had positive implications for the development of children aged above three years but not for children under three years old. This was because nursery school activities and environments did not cater for their needs. Results on children care by siblings showed that activities carried out differed depending on the maturity of the care giver. Childcare by immature siblings had negative implications due to absence of feeding, affectionate interaction, sanitation and safety. Recommendations for education and training of mothers and nursery school teachers on child development were outlined. Use of child to child approaches to train sibling caregivers on childcare was recommended. Recommendations for developing specific age appropriate activities and materials for under three year olds in the nursery school and expansion of recreational facilities were also delineated.

## CHAPTER ONE

### INTRODUCTION

#### 1.1 BACKGROUND INFORMATION

Childcare constitutes of actions that promote a child's survival and development. For children to survive, grow and develop, they need food, clothing, protection from diseases and accidents, nurturance and stimulation (Myers, 1992). Childcare is provided by the family or can be delegated to other individuals and institutions. In most communities of the pre-industrial era, mothers and certain members of the nuclear and extended family were the main caregivers. In the traditional communities of Kenya, the responsibility for childcare in the early childhood months lay mainly with the mother. Female relatives and siblings also played important roles in childcare alongside the mother, when children grew older and less dependent on her. (Leiderman & Leiderman, 1974; Kenyatta, 1954 )

Over the years, major social and economic changes took place and families had to make significant adaptations in order to cope with these changes. This in turn affected childcare. With colonialism came changes in land policy. The alienation of African lands for occupation of colonialists dislocated many Africans and rendered many people landless. Adult males were forced to seek wage employment. As more men participated in wage labour, women's workload increased as they took up the work left behind by men's absence (Kanogo, 1967; Meghi, Meghi & Kwayu, 1985). There were also changes in farming methods and type of crops grown. This transformed the economy from subsistence to a cash crop economy. Family roles in household production changed as

result of this. Education was also introduced and children enrolled in school. This resulted in fewer siblings to provide childcare. (Ohuche & Otaala, 1981).

With independence the socio-economic changes and other forces of development intensified. Changes in technology and economic activities led to development of urban centres, diversification and faster means of communication, and expansion and diversification of employment. This led to migration to urban areas where employment opportunities were to be found and resulted in decline in extended family ties (Sticher,1975). Economic pressures that families faced also contributed to the decline of extended family, as they could not allow for continuation of the extended family way of life. This resulted in changes in patterns of social relationships and roles of family members. Among these were the childcare roles that extended family played (Kayongo-Male & Onyango, 1984).

Urbanization also led to growth of informal settlements. These settlements arose due to lack of supply of affordable housing to lower income groups. (Alder, 1995). These settlements were poor environments for child care as they were crowded and lacked urban services. Consequently there was poor environmental hygiene and disease outbreaks ( Swadener ,1995).

Women became more involved in wage employment due to education, increased employment opportunities and the need to earn an income to support their families. The

growth of female-headed households, which tended to have smaller land holding, lower income and fewer assets also drew women into wage employment (Zezeza, 1989). The absence of mothers from the homes created a need for supplementary childcare.

The expansion of the formal education sector resulted in more children enrolling in school. Moreover, there was increasing need of specialization and children spend more time in school in order to acquire the right skills for employment. Siblings who were a valuable source of childcare thus became unavailable.

It was apparent that families needed to change their childcare arrangements in order to cope with these changing socio-economic conditions. Studies on childcare arrangements show that five main types of childcare arrangements were made. In the first category were childcare arrangements in which mothers were the main caregivers. This option was taken by mothers who worked at home or carried their children to their work place (Myers, 1992; Doan & Popkin, 1991). Mothers who were unable to obtain alternative childcare also used this arrangement (Joekes, 1989). The second classification included delegating childcare tasks to relatives and siblings (Engle, 1989; Doan & Popkin 1991; Swadener, 1995). The third type was delegation of childcare, where children were sent away to be fostered by other families. The child worked for the foster family in order to compensate for being fostered. Fostering also included situations where children were sent to live with relatives (usually grandmothers) in rural areas. (Joekes, 1989). In the fourth category families left children unattended. This happened when there was the

absence of childcare helpers and where economic necessity compelled mothers to seek employment. (Joeke, 1989; Capizzaro et al, 2000; Soneinstein et al, 2002) The fifth type of childcare arrangements included using childcare services for pay, such as formal childcare facilities provided on an institutional basis or hiring a baby sitter or house help. ( Joeke, 1989; Capizzaro et al, 2000; Soneinstein et al ,2002)

Studies on childcare arrangements in Kenya indicate that different childcare arrangements were used in different localities. In the rural agricultural areas such as Siaya, Kilifi and Embu, maternal care was the main care giving arrangement. (NACECE, 1995 ; Paolisso et al, 1989). Extended family was also a source of childcare in rural areas (NACECE 1995). In a cash crop growing area where parents were employed in a tea plantation, siblings cared for children. High population density areas such as Nairobi city, childminders were used by the upper classes and siblings were used as caregivers in slums (Swadener, 1995). Female headed households in which the mother worked away from home, were forced to leave children unattended if there was no alternative childcare (NACECE, 1994). Institutional childcare services were also used to provide childcare. These were mainly nursery schools and playgroups. (Riak et al 1989; Kabiru 1989)

These changes in childcare arrangements have implications on child development. According to Engle (1989) childcare by mothers and other adults had positive implications for child nutritional status. However childcare by siblings affected child nutritional status negatively. Sibling care was also found to have negative implications in

a study of childcare in rural Embu. The incidence of diarrhoea was higher during the peak agricultural season when children were left under the care of siblings while mothers were busy in the fields. (Paolisso et al ,1989)

Research on day care centres shows that child development was influenced by the quality of care provided by care givers. In day-care centres where there were low adult / child ratios (i.e. below ten toddlers and twenty pre-schoolers), caregivers were found to be stimulating, and had warm supportive care. Children in these centres displayed more pro-social behaviour with caregivers and peers. Where an adult cared for many children, more time was spent managing children and they appeared distressed and apathetic (Clarke-Stewart, 1987; Vandell and Powers, 1983; NICHD, 1999) The research evidence shows that childcare arrangements can be detrimental or have positive effects on child development. It is therefore important to ensure that appropriate childcare arrangements are made.

## **1.2 STATEMENT OF THE PROBLEM**

Childcare arrangements have implications on child development. This is because they expose children to different caregivers and environments. Childcare arrangements in which children lack appropriate care expose them to the risk of poor nutrition, illness, stress and non-stimulating environments. On the other hand warm and responsive caregiving enables children to develop socially and provides the security required to explore and discover their environment. The importance of appropriate childcare

arrangements cannot therefore be underestimated especially during the early years of childhood when rapid development of intelligence, personality and social behaviour occurs. It is in this critical period that the child is most vulnerable to develop physical, cognitive and psychosocial disabilities that are difficult to correct in later life. For poor families socio-economic changes have put them at risk of making inappropriate childcare arrangements. This is due to lack of resources, childcare support and coping skills. The situation is exacerbated by the lack of provision of social amenities by the public sector. Children from these families face the risk of inappropriate care and consequently delayed development. Although childcare arrangements are important to child development, studies in the third world where most poor people are found are deficient in information and analysis of their implications on child development. This study aimed at investigating the childcare arrangements made by landless families of Maina village, Laikipia district. The childcare activities and environments entailed in the childcare arrangements were examined for the implications they had on child development.

### **1.3 PURPOSE OF THE STUDY**

The purpose of the study was to investigate the childcare arrangements made by parents in Maina village, and reasons for choice of these arrangements. The study also investigated the childcare activities undertaken and the environments of different childcare arrangements. Children included in the study were those aged below 6 years. These early years of childhood are crucial in a child's development.

#### **1.4 OBJECTIVES OF THE STUDY**

1. To establish types of arrangements made by parents for the care of children in Maina village.
2. To determine the reasons for the choice of childcare arrangements.
3. To describe the care -giving activities undertaken in each childcare arrangement
4. To determine the environments in which childcare took place.
5. To examine the relationship between mother's occupation, marital status, family size, child age, income and childcare arrangements.

#### **1.5 SCOPE AND LIMITATIONS OF THE STUDY**

The research involved families with children aged below six years. It focused on the arrangements made for childcare, the factors influencing the choice of childcare arrangements and activities taking place in each arrangement. The environment in which all this happened was also studied. Due to limitations of finance and time, only a representative sample of families in Maina village was studied. The findings of the study can only be generalised to the population of Maina village. Generalisations to other slum villages in Kenya should be made with caution

## **1.6 ASSUMPTIONS OF THE STUDY**

The study made the following assumptions:

1. Children who lived in a household whether biological or fostered, belonged to the family.
2. Care- giving activities observed were routine.

## **1.7 SIGNIFICANCE OF THE STUDY**

1. This study documented information that would add to knowledge on childcare arrangements. It also provided in-depth information on childcare activities.
2. The study documented information that can be used in identifying ways of providing childcare support to families in Maina village. Agencies which invest in childcare and development will find this information useful. These include the Child Welfare Society of Kenya, the Ministry of Education and Social Services in Nyahururu.

## **1.8 DEFINITION OF TERMS**

- i. Care-giver - Any individual who is available to provide care to the child, if needed. (Isely, 1993).
- ii. Care-giving activities - Activities that are geared towards meeting a child's need for survival and development. They involve nourishment, protection against danger and disease, nurturance and socialisation (Myers, 1992).
- iii. Child care - An interactive process where a caregiver provides for the physical, social and psychological needs of the child.

- iv. Day care – Programmes that cater for mainly urban middle class children of working mothers. They emphasize enrichment and stimulation.
- v. Development needs - These are requirements for a child's physical, social, emotional and cognitive development. (Myers, 1992).
- vi. Environment - The set of physical, biological, economic, social and cultural factors relating to families, which interact with them hence transforming each other.
- vii. House help – Workers (usually young females) hired to mind children in addition to doing household tasks (Kipkorir, 1994).
- viii. Pre-school – Early childhood programmes with formal pre-school training in a classroom like atmosphere, which prepare children for primary school.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 INTRODUCTION**

This chapter reviews literature under the following sub-heading.

1. Components of childcare.
2. Socio-economic changes influencing childcare.
3. Childcare arrangements made by families.
4. The influence of childcare arrangements on child development.
5. Summary

#### **2.2 COMPONENTS OF CHILD CARE**

Childcare involves activities that respond to a child's needs for shelter, protection, food, clothing and health. In addition to this, it should include attending to a child's emotional welfare, cognitive and moral development (Myers, 1992). From this definition, it is apparent that childcare should go beyond custodial care to include socialization, affection, stimulation, creation of a secure environment and play that allows exploration and discovery. Research shows that this holistic approach is necessary if the child is to grow and develop because each aspect of care works in synergy with the others. For instance, an aspect of physical care like feeding provides energy for muscle development. This enables the child to crawl and walk thus exploring the environment. This in turn enhances cognitive development (Johnson, 2001). Responding to a child's cry by holding

and meeting physical needs establishes a sense of trust and security, thus physical care provides also for psychological needs of the child (Thomson, 1998).

Childcare has been visualized as an interactive process, where both the child and the caregiver respond to cues from each other. Instead of being a linear relationship in which the caregiver provides care to a passive recipient, it involves a complex array of interactions where each individual's reactions influence those of others. Schaffer and Collis (1986) illustrated this with feeding behaviour. While feeding involves provision of food, it is modulated according to a child's expressions of hunger and satiety. The child's behaviour therefore evokes care-giving behaviour. Similarly when a caregiver provides food, health-care protection and affection, the child acquires energy to interact with the caregiver. This positive interaction with the caregiver provides motivation to continue meeting the physical and emotional needs of the child. Effective meeting of a child's physical, social and psychological needs requires that there be interaction between the child and the caregiver.

### **2.3 SOCIO-ECONOMIC CHANGES INFLUENCING CHILDCARE**

The provision of childcare has been affected by various socio-economic changes. In the rural agricultural society of the 19th century, child care was undertaken within a nuclear family with extended family close by (Myers, 1992). The role of childcare lay clearly with women whose work usually permitted them to attend directly to the children during the early years of childhood. Members of the extended family and the children's older siblings helped with the childcare tasks. The child's environment consisted of plenty of

space to play and explore. With industrialization came new conditions. Families moved to cities, increasing the isolation of the nuclear family. Home production was transferred to other systems outside the family. There was an increase of women with children under five, participating in paid employment, away from the home. There was now a need to care for children of working mothers and provide an environment, which ensured adequate stimulation for children. In response to these changing circumstances, social welfare programmes such as day-care centres were set up where childcare was offered. These programmes had differing aspects of care, ranging from provision of custodial care to enrichment and stimulation of children and were run by the government (Kostelnik, et al, 1982).

Literature on the social and economic trends in Kenya reveals major changes occurring during the colonial era. The colonial administration introduced new economic activities like mining, road and railway construction and production of cash crops. The colonial administration also introduced taxes that male adults had to pay. The alienation of African lands for the occupation of the colonialists dislocated many Africans and rendered many people landless. (Kanogo, 1987; Meghi, Meghi and Kwayu, 1985). Adult males were thus forced to seek wage employment. This resulted in changes in the traditional family production unit. Women's workload increased because they had to take up the production roles of men who had joined the paid labour force. (Meghi, Meghi and Kwayu, 1985). This created demands on women's time and limited their availability for childcare.

Other changes that affected childcare included the introduction of foreign values like Christianity and Western education. (Ohuche and Otaala, 1981; Mbiti, 1969). The arrival of formal school interfered with indigenous educational forms and drew children away from home. After independence, technological change brought transformation in economic activities, which in turn led to development of urban centres and expansion and diversification of occupations. (Gakuru, Koech and Nduati, 1995; Obudho and Obudho, 1981). Men migrated to the expanding urban centres in search of work and were later followed by their families. The move to urban centres resulted in less access to extended family networks which led to the loss of important support for childcare.

Another major change affecting families was the participation of women in paid labour. Between 1964 and 1985 women's employment increased from 70,400 to 230,900 persons (CBS, 1986). The number of women in wage employment continued to increase. By 1994 it had risen to 347,600 persons (CBS, 1995). Participation of women in paid labour increased due to expansion and diversification of employment, female participation in education and economic pressures facing the family requiring both parents to be wage employed. The need for wage employment for women also increased with the growth of female-headed households which tended to have smaller land holding, lower income and fewer assets (Zezeza, 1988). Working mothers frequently had insufficient time at their disposal to give their full attention to the care of children. (Kanji, 1996)

Changes occurring in the rural agricultural economy included cash crop growing and privatisation of land tenure. Privatisation of land led to loss of means of livelihood for women who did not own land in a system where land belonged to men, when their husbands died or divorced them. Thus they had to seek waged labour. A study done in Kangemi slum, in Nairobi Kenya, indicates that 34% of women who migrated from rural areas were widowed or divorced and thus had no access to land and 31% migrated in search of income from waged labour (Munyakho, 1992). Privatisation of land also encouraged nuclearization of families because people did not build and live in communal spaces. This affected childcare as it resulted in loss of the communal responsibility for childcare. Privatisation of land also affected family's ability to provide food because it meant less land for crops and animals.

A communication revolution helped to create a global village. New ideas, cultural beliefs and values were thus imported into the society. Infant feeding and other child-rearing practices were influenced. Other ideas like family planning were imported. This challenged old beliefs such as having several children who would help in household production. Instead smaller family units were valued.

In recent years, HIV/AIDS has swept across sub-saharan Africa. This has affected families in many ways. The death of HIV infected parents has created AIDS orphans who in many cases are left to fend for themselves. These child headed households suffer from loss of family, psychological stress, lack of essential care, homelessness, child labour and

exposure to HIV later in life. AIDS orphans are also fostered by extended family. These families are already overburdened as a result of caring for ill members and fostering children, therefore they have fewer household resources to provide for the basic needs such as nutritious food and education. (World Bank , 2005).

## **2.4 CHILD CARE ARRANGEMENTS MADE BY FAMILIES**

To adapt to the challenges that the socio-economic changes created, families have made various childcare arrangements. Literature indicates that there are five main types of arrangements. These include maternal care, delegation of childcare responsibilities to siblings and extended family, sending children to be fostered, paying for childcare and leaving children unattended.

Working mothers were able to undertake childcare if their type of work, distances to work and work conditions were conducive for childcare. Engle (1989) found that women working in agriculture in rural Guatemala reported full-day childcare. Childcare was done as they did agricultural work since they carried children to the fields. In rural Siaya, Kilifi, and Embu where agricultural activities were done, mothers were the predominant caregivers. (NACECE, 1995; Paolisso et al, 1989). Agricultural work thus appeared to be the most compatible with childcare.

Some mothers opted not to take up paid work in order to attend to childcare. This happened if they lacked any childcare alternatives. (Doan and Popkin , 1989). The age of

the child also determined the choice for maternal care. Since infants are physically dependent on the mother for breastfeeding and require intensive care, mothers opted to take up full-time childcare. (Paolisso et al. 1989)

Delegation of childcare to siblings, extended family was done if mother's work was not compatible with childcare. Urban working women in Guatemala delegated childcare to siblings while they worked in occupations such as factory and domestic work, vegetable vending, and waitresses in cafeterias. These mothers could not carry children to work as the distances to work were far. Thus they did childcare activities such as feeding children and food preparation early in the morning before they went to work. Children were then left in the care of siblings (Engle 1989). Similarly in the Phillipines, mothers would take up part time work and delegate childcare to siblings during periods when they were at work. (Doan & Popkin 1989). Childcare was also delegated to siblings after school in Kenya. In this case childcare activities mainly consisted of play, carrying the child, and entertainment. This was done while playing and visiting with other children. (Swadener, 1995 ). In the Kericho tea plantations in Kenya siblings undertook all childcare tasks such as feeding, food preparation, watching and comforting. They also did household tasks. When the siblings went to preschool they carried the children along. These siblings undertook childcare for longer periods than they might have traditionally done. (Swadener, 1995) Sibling care was also recorded in the slums in Nairobi, where children were left under the care of older siblings when their mothers went to work. (NACECE 1995). Childcare by siblings was thus coping strategy for mothers who had to work and

did not have any substitute caregivers. This sometimes meant that children were kept out of school in order to undertake childcare.

Use of extended family for childcare is common. In the United Kingdom and United States of America, extended family provided childcare support. (Melhuish ,1991; Soneinstein et al , 2002). In Kenya delegation of childcare to extended family has been documented in rural areas (Swadener 1995). The presence of extended family provided a setting where women could carry out both productive and reproductive roles with a minimum of conflict. Sometimes child care was delegated to extended family outside the household. Children were sent to grandmothers in the rural areas. This was a traditional practice used to solve problems of childcare in the city (Joekes ,1989).

Hired childminders were an important source of childcare for employed mothers. Families in urban areas in Kenya were shown to use childminders (NACECE,1995). Families using this type of arrangement were mainly the upper and middle class families. This shows that financial constraints kept low-income families from using childminders.

Nursery schools and playgroups also served as childcare arrangements for working mothers. These are social institutions with varying aspects of childcare as well as varying amounts of care giving. Nursery schools were introduced in Kenya as early as 1940. They included day-care centres in plantations and large towns. A larger number of day-care centres were opened during the Mau Mau war. These provided custodial care to children

while their mothers were involved in forced labour. (Herzog, 1969) After 1963, there was a rapid expansion of nursery schools brought about by joint efforts of communities, government, welfare organizations and private enterprise. These schools shifted their focus from being non-teaching childcare settings to academic instruction and school preparation. (NACECE, 1995). Enrolment rates in nursery schools have increased since they were first started. However, there have been years of decline in enrolment, which have been attributed to parents' inability to pay fees. According to the Ministry of Finance (2000), there was an enrolment rate of 35% of children in 1996. This declined to 33% in 1999 and then slightly increased to 34% in year 2000.

Leaving children unattended was an option that families took especially if economic necessity compelled the mother to work and there were no childcare alternatives. Mothers would try to provide for their unattended children's food and safety needs as best as they could, while they were away. For instance, they fed a large meal to their children, when they were going to be away from home for the whole day. (Joeques, 1989; Engle, 1989).

It is evident from literature that different childcare arrangements were used in different localities for instance, urban, rural agricultural, plantations and so on. This implies that childcare arrangements are influenced by factors that are specific to the localities that families live. Since some areas such as slums in small urban areas have not been investigated childcare arrangements in such areas have not been documented. This study aimed to fill this gap.

## 2.5 THE INFLUENCE OF CHILDCARE ARRANGEMENTS ON CHILD DEVELOPMENT

The early years of childhood are critical in the formation of intelligence, personality and social behaviour. It is in these early years the child undergoes rapid physical and brain development. At the same time, the child is most vulnerable to develop physical, cognitive and psychosocial disabilities, which may be difficult to correct later in life. (Bornstein & Lamb, 1999). Substantial evidence has demonstrated that the quality of care in different types of childcare arrangements affects a wide range of children's developmental outcomes including cognitive, social and health outcomes. Most of this research, however, is centred on the nurseries and day-care and home-based programmes available in the community. Only a handful of studies have observed children in the vast informal childcare arrangements consisting of care by relatives, friends and neighbours.

Research evidence in day-care and nurseries shows that the quality of care influenced child development outcomes. Centres that were well-equipped, had low adult child ratios. (i.e. below 16 toddlers or 20 pre-schoolers for two adults) and caregivers with specialized training pertaining to child development produced benefits for cognitive, language and social development. The quality of care from such centres was a high because when child-adult ratios were lower, caregivers spent less time managing children and offered more stimulating, responsive, warm and supportive care. (Clarke-Stewart, 1987). Further, caregivers with more formal education and specialized training on child development were more likely to organise materials and activities into more age

appropriate environments for children. Children from these high quality centres showed more positive interactions with teachers and peers than children from low quality centres. Four years later, they seemed more socially competent. (Vandell & Powers 1983). Low quality care was found to produce negative effects. Children in low quality centres were low in cognitive development than those attending high quality centres or those in homecare (NICHD, 2000).

Research evidence on day-care also indicates that it has different effects on child development outcomes depending on the age of the child. Studies have consistently shown that pre-school experience for three to six-year olds enhances intellectual development, and improved independence, concentration, and sociability. Children who had pre-school experience were more cooperative and socially competent at age seven than children who were cared for exclusively at home prior to starting school. (NICHD, 2000; Sammons, 2003).

Disadvantaged children especially benefited significantly from good quality pre-school experiences. However for the first year of life, day-care had negative effects. Children with substantial day-care in their first year were found to be less tolerant to frustrations at three years of life and had increased behavioural problems. (Melhuish, 1991).

Other childcare arrangements had implications on child development. Regarding maternal care Engle (1989) found that child nutritional status was high for children under

maternal care. Maternal care also influenced cognitive, emotional and social development. The close intimate interactions between the mother and the child while feeding, breastfeeding, carrying on the back and holding were important in emotional development because they develop a sense of trust. According to Erickson (as cited by Bornstein & Lamb 1999), these experiences are significant determinants of major personality characteristics relating to trust, dependency, optimism, and confidence in the good will of those with whom the child interacts. It also is important in the development of a healthy sense of self esteem. Unless these needs are met the child will develop a feeling of mistrust and fear of dependency.

The provision of physical care by the mother also has influences child development through formation of early attachment. This is because children form attachments with the caregiver who provides physical comfort. The formation of early attachments have been documented to be important in developing a sense of security. This in turn enables the child to explore the physical and social environment without fear of being separated from then caregiver. (Bornstein & Lamb 1999) Exploration of the environment enhances social and cognitive development and affects learning and school achievement in later life.

Other activities that mothers undertook were singing, talking and teaching the names of things. These activities encompassed verbal interaction. Verbal interaction has been shown to be a foundation for language development. According to Snow et al (1998), the amount of communication input directed to a child at an early age was related to

language comprehension at three years. Verbal interaction in which the caregiver responds to the child's vocal signals has been shown to influence the child in several ways. (Cohn; Campbell and & Ross, 1991). The child learns the skill of reciprocity, which is taking turns in acting and reacting. Children also realize that they can affect the behaviour of others and they learn to trust, because their caregiver can be counted on to respond when signaled.

Care giving activities by extended family have also been documented. Care giving activities performed by grandmothers included singing lullabies, telling stories, play and provision of play items, feeding and supervising sleep (Swadener,1995). Traditional values were transmitted to the children as the grandmother sang songs and told stories with cultural content. Providing of sticks and beads to the children for play could have the influence of stimulating them.

Caregiving by extended family has been shown to serve as a source of stability and survival of many families and their children. This is mainly because there are shared values, customs and child rearing patterns among extended family groups and these provide continuity in child socialization. Positive aspects of childcare by extended families have been reported. Studies have found that child living with extended family are less likely to have psychological disorders because of harmony and stability provided by extended family (Campbell & Bubolz ,1982).

Siblings have often contributed to childcare. Research has documented the effects of sibling care on child development. Siblings play a critical role in meeting the affectional needs of the child. As the child's close companions they are sources of warmth and security to each other. Siblings are also important parts of a child's learning environment. They serve as an invaluable guide to experiences yet to be encountered. These serve to stimulate cognitive growth. Sibling caregivers are the primary playmates for the growing child. Children acquire substantial cognitive and social knowledge through play. Socio-dramatic play in particular is thought to be instrumental in cognitive development. The experience of developing and acting out social fantasies is believed to improve numerous cognitive, creative and social skills. It provides children with frequent opportunities for role taking; an activity central to cognitive growth.

Children must learn appropriate social behaviour, acquire social competencies and master rules and values of their culture in the course of development. Siblings play key roles in this socialization process. Siblings are important sources of information and act as influential role models for appropriate sex-role behavioural patterns. They are also important parts of the social environment which shape the growth of values. This is done through agreement of what constitutes fair and responsible behaviour. Siblings model and reinforce appropriate conduct and often impose moral rules and regulations on each other. Younger children in turn, look up to and emulate the values and goals of older siblings.

Siblings not only contribute to the acquisition of values but also determine a child's self-concept. Self-concept arises during social interactions where children perceive themselves in the way others perceive them. Siblings are therefore the reference group for describing and evaluating themselves. In the course of interacting with siblings children acquire numerous social competencies essential for normal adjustment. The sibling relationship serves as a unique context for acquiring such skills as self disclosure, conflict resolution, appropriate expression of affection., helping skills, communication ability and social sensitivity. (Furhman & Buhrmester 1982).

The influence of childcare by childminders included socialization. This was done through childcare activities like toilet training, dressing, training to walk and feed and training in manners. Childminders also met the affectional needs of children by carrying them, and comforting them when they cried. Cognitive development was influenced by telling stories and providing activities that kept children busy. Childcare was done in addition to household tasks. (Kipkorir, 1994; NACECE, 1999). However this arrangement had the disadvantages of high turnover of childminders thus children may not have had time to form attachments with them.

## **2.5 SUMMARY**

This chapter examined the components of childcare, the socio-economic changes affecting the family's role of providing childcare, the ways in which families have adapted to the need for childcare support and the implications this has on child development. It has established that childcare consists of actions that meet the child's

needs not only for survival but also for development. Families have the role of providing childcare. However, their ability to provide childcare has been affected by various socio-economic changes, namely urbanization, women participating in paid labour, changes in agricultural land policy and schooling. This has resulted in, among others, a decline of extended family ties and loss of communal responsibility of childcare, loss of major caregivers such as mothers and siblings. Families have adapted to these changes by mothers maintaining their childcare roles when their work is compatible with childcare, delegation of childcare to other individuals, using pre-schools and leaving children unattended. The ensuing childcare arrangements had implications that were either positive or detrimental to child development. Although the significance of childcare arrangements has been demonstrated, much remains to be done. Studies related to childcare in the third world are generally deficient in information and analysis of the different childcare arrangements used since they consist of time use studies or simply give descriptions of childcare arrangements, with a brief mention of childcare activities and environments.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 INTRODUCTION**

The purpose of this study was to identify the types of childcare arrangements made in Maina village and the childcare activities and environments entailed in each childcare arrangement. The study further aimed at determining the reasons influencing the choice of these arrangements. This chapter describes the procedures used to achieve the purpose of the study. It focuses on the research design, the study location, the sampling procedures, the development of research instruments, the process of obtaining data and the analysis of these data.

#### **3.2 RESEARCH DESIGN**

This was a descriptive survey. A descriptive survey was useful for this study because it involves investigating a phenomenon from carefully selected members of the population and then describing it. The study utilised mainly quantitative methods of data collection and analysis. However, qualitative data was used to complement the quantitative data.

#### **3.3 THE STUDY LOCATION**

The study was done in Maina village, which is a slum located in Nyahururu Division of Laikipia District. It is situated in the environs of Nyahururu town. Maina village exhibits

characteristics typical of slums as defined by Alders (1995). In this definition, slums are urban areas with the following characteristics;

- Owners of structures have either a quasi-legal right of occupation or no right at all.
- Structures are constructed of temporary materials and do not conform to minimum standards.
- The majority of structures are let on a room by room basis and the majority of house-holds occupy a single room or part of the room.
- The majority of inhabitants have low or very low incomes.
- Densities are high, typically 250 units per hectare compared to 25 per hectare in middle income areas and 15 units per hectare in high income areas.
- Urban services such as water and sanitation are non-existent or minimal.

Maina village has characteristics, which conformed to this definition. It is situated in the environs of an urban centre and its housing consists of crowded wooden houses (UNDP, 1992). It was observed that they were let on a room by room basis. The sanitary system is characterised by waste water and garbage in open ditches and overflowing latrines. (UNDP, 1992). Urban services such as water and electricity were minimal. It was observed that only some houses had electricity and piped water. In order to obtain water, residents had to buy or draw it from a public piped outlet. There was also a seasonal stream from which the members of the village could draw water. There are 2,886 households and a population density of 1,506 people per square kilometre. (CBS, 1992).

The residents of Maina Village were landless people who cultivated government land in Marmanet forest. Maina Village was therefore a unique slum because farming was the prevalent activity rather than waged labour which is common to other slums in major urban centres.

Maina Village has an area of 6.6 square kilometres. It has a population of 10,243 people of whom 5,055 are males and 5,188 are females. Social amenities include a dispensary, two primary schools and nine nursery schools. There is a chief's office and an administration police post and one public pay phone. Economic activities in Maina village consisted mainly of farming. The most common crops included maize, beans, Irish potatoes and cabbages. The annual rainfall is 706mm. There are two rainy seasons; the long rains from March to May and the short rains from October to November. (Ministry of Finance, 2002)

Informal businesses also formed part of the economic activities undertaken. These included full meal restaurants referred to as 'kiosks', butcheries and groceries, raw vegetable and fruit vending, shoe repair, clothes, tailoring and hair salon businesses and bars. Other business ventures were linked to produce from the forest land. These included transportation of maize and burning and selling of charcoal.

Maina village was ideal for this study because it depicted how the landless poor coped with the challenges of childcare. Research on childcare has mainly been carried out in rural communities and slums of major urban areas. Locations with landless poor have

therefore been neglected. Maina village was also chosen because the researcher has access to the area.

### **3.4 SAMPLE AND SAMPLING PROCEDURES**

The target population comprised families with children aged below six years. A physical count done by the researcher established that there were 722 families with at least one child aged below six years. Out of these, a sample of mothers of 75 families, were selected. This comprised 10% of the population, which is the minimum sample required for a descriptive survey (Gay, 1976). The main sample was selected using simple random sampling. The sampling frame was drawn up by writing a list of the households, which had children aged six years and below. This was achieved by visiting the houses in the village to ascertain which households were eligible for study and where they were located. 75 families were selected from the sampling frame using tables of random numbers. The homes of the families with children aged below 6 (sampling frame) were numbered 1-722. Reference was made to the first column of the table of random numbers. The first three digits of the number were picked and the house with corresponding number chosen. The next number across the row of the table of random numbers was used to choose the next house. This was done until 75 houses were included.

The sub sample was selected using purposive sampling. Utilisation of purposive sampling would ensure that the information on childcare activities of a childcare arrangement was

obtained. The sub-sample was selected after the types of arrangements made by families, were identified.

Five families were thus selected using the following criteria:

- (i) The family used a certain type of childcare arrangement predominantly.
- (ii) The family was willing to participate in the observations.

### **3.5 DEVELOPMENT OF RESEARCH INSTRUMENTS**

Research instruments used included a questionnaire, an observation and interview guides.

#### **3.5.1 QUESTIONNAIRE**

The questionnaire was used to obtain data from mothers on childcare arrangements made, factors influencing choice of childcare arrangements and childcare activities undertaken. The questionnaire was used because it enables the collection of standardised information from many respondents. To develop the questionnaire, the objectives were considered. Questions were formulated to cover each of the objectives. For questions regarding which childcare activities were made, a list of childcare activities was obtained from books on childcare and development. The questionnaire had closed-ended questions which had response sets already specified. It also had open-ended questions for items that required opinions from respondents and those for which no predetermined response sets could be generated. Demographic variables were also included. Items were then sequenced into the following parts:

1. Demographic information

2. Childcare arrangements made
3. Factors influencing choice of childcare arrangements.
4. Childcare activities

The questionnaire was administered verbally to allow for obtaining information from respondents who could not read and make written responses for themselves. This also helped in probing open-ended questions for clarification of responses.

### **3.5.2 OBSERVATION AND INTERVIEW GUIDES**

The observation guide was used together with the interview guide to obtain in-depth information pertaining to each of the types of childcare arrangements identified. It was a useful tool for obtaining details about childcare activities and environments which would have otherwise been difficult to obtain from a questionnaire. It derived more authentic information from the respondents since they were observed going about their activities in their natural setting.

The observation guide consisted of two parts. In the first part, the elements of the physical environment where childcare activities took place were outlined. These included space, objects and arrangements, animals, sanitation and facilities for childcare. These elements were important for describing the context in which childcare took place. The second part of the observation guide had a list of childcare activities that the observer was to look out for. These were; feeding, clothing, bathing, talking to the child, sleep or rest and caregivers workload. This helped the observer to focus mainly on activities that were relevant to the purpose of the study. Topics for the interview guide were based on

childcare activities expected to be carried out. These were used to develop questions on aspects of childcare activities that were not observed and were used mainly for clarification purposes.

### 3.6 PRETESTING OF INSTRUMENTS

Controls of validity and reliability were instituted to establish the credibility of the instruments employed in this research. Validity refers to the degree to which the researcher has investigated and what was set out to be investigated. Reliability is the extent to which a research instrument could be employed repeatedly under the same conditions and produce the same results. Pre-testing of instruments provided a basis for their validity and reliability.

The questionnaire was pre-tested on a sample of 14 families drawn from Máina village. The observation and interview guide was pre-tested on one family. The sample for the pre-test was selected using the same procedures as those of the research. Families which participated in the pre-test did not participate in the main research. Adjustments to the questionnaire were made such as reframing of questions and addition of others. Additional topics were generated from the observation and interview and these were added to the guides. Methods of recording data from the observations and interviews were revised. Reliability was achieved through triangulation. Miles and Huberman (1994) define triangulation as a way to get findings from different sources by using different methods, for purposes of verification. In this way the study provides evidence that if it were replicated, its findings would be repeated. Triangulation was done by

checking data obtained from the questionnaire against data from in-depth interviews and observation.

### 3.7 DATA COLLECTION

Data were collected using questionnaires, in-depth interviewing and observation. As is the procedure in Kenya, prior to undertaking research, permission was sought to carry out the research from the Office of the President. Access to the field was gained by visiting homes in the company of two members of the village prior to the research. These individuals acted as guides as well as links between the researcher and the members of the village.

The questionnaire was administered verbally to mothers at their homes or shops. Responses were recorded on the questionnaire. For families with more than one child aged below six years, responses pertaining to the youngest child were elicited. After questionnaires were administered and types of arrangements identified, families were selected based on the child care arrangement they used predominantly. Five families were selected each of whom used a different childcare arrangement predominantly. Parents of these families were approached for permission to visit their homes for observations. Most parents were willing except for one family. However after a lot of explanations by women in the village, the mother of this family accepted. Appointments were made for the first visit during which the researcher spent time talking with the family members. Parents asked questions about the aim of the study. This was explained. The researcher also tried to put the family members at ease by explaining that information sought was

not for purposes of judging their childcare practices. Instead, the researcher took the role of a student interested in describing how they cared for children.

Five subsequent visits were then made without any prior appointment. This facilitated the collection of more authentic information, since family members did not prepare for the researcher. The researcher also assured the family members not to bother about her and instead go about their daily routines. The researcher, however, did not visit all families of the sub-sample without prior appointment. When observing childcare at the farm, an appointment was made, because the researcher was not familiar with the area. In this case the researcher had to make arrangements to go together with the caregiver to the farm.

Observations were recorded on a sheet of paper as childcare was carried out. In depth interviews were conducted after an observation period. However, some conversations did occur during the observation period and these were recorded during the time they occurred.

### **3.8 DATA ANALYSIS**

Data were first cleaned by verifying the numbering on the questionnaire, removing duplicates and questionnaires with blanks.

Data were then organized through coding of each item on the questionnaire. Data from open-ended questions was analysed by grouping responses that were similar. These were then assigned codes. Comments that were seen to be valuable for presentation as verbatim quotes were identified.

Data were then entered into the computer and were further cleaned by verifying that the data entered in the computer tallied with those on the questionnaire. If there was a discrepancy between an item on the questionnaire and its code on the computer, it was corrected by re-entering of the right code. Data were then analysed using the SPSS computer programme, for frequencies and percentages. Relationships were tested using chi-square. A 0.05 level of significance was used for chi-square tests. Results were presented in tables of frequency distributions, percentages and chi-square results.

Data from observations and in-depth interviews was analysed qualitatively. The data were checked for regularities and patterns on how childcare activities were carried out. This generated categories. The data were then searched through so as to identify the paragraphs that corresponded to the various coding categories. Each paragraph was then marked with the appropriate coding category. Literature on the influence of childcare activities on child development was used to determine the implications of the observed childcare activities on child development. Qualitative data were used to supplement quantitative data.

## CHAPTER FOUR

### RESULTS AND DISCUSSION

#### 4.1 INTRODUCTION

This study aimed at investigating the childcare arrangements made in Maina village. Childcare activities and environments were examined for the bearing they had on child development. The reasons for the choice of childcare arrangements and the relationships between selected demographic variables and childcare arrangements were also determined. Results were presented using frequencies, percentages and chi-square tables.

These are discussed under the following sub-headings:

- Demographic characteristics of the sample
- Childcare arrangements
- Reasons for the choice of childcare arrangements
- The relationship between selected demographic variables and childcare arrangements
- Childcare activities
- Childcare environment

#### 4.2 DEMOGRAPHIC CHARACTERISTICS OF SAMPLE

This section provides the background information of the sample. This includes mother's age, education, marital status and occupation. Family size, family income and age of children were also considered.

With regard to mother's age, 40% of the mothers were aged between 20-24 years and 25% were aged between 25-29 years. These age groups are consistent with those of the peak childbearing years of females in Kenya informal settlements. (NCSS, 2000).

The mother's educational level was considered because mother's education is expected to improve their knowledge of health and nutritional practice, as well as their use. Table 4.1 illustrates results on mother's educational level.

**Table 4.1: Frequency and percentage of mother's educational level**

Mothers educational level	Frequency	%
Below primary school	5	7
Primary school	46	61
Secondary school	22	29
Vocational education	2	3
Total	75	100

Results show that mothers had acquired basic education. Majority (61%) of the mothers had primary education and 29% had secondary school education.

The mother's occupation was examined. It was considered important because it had a bearing on the extent to which both work and childcare could be fulfilled. Table 4.2 indicates results on mother's occupation.

**Table 4.2: Frequency and percentage of mother occupation**

Mothers occupation	Frequency	%
Farming	42	56
Small scale business	13	17
Housewife	10	13
Permanent employment	6	8
Casual employment	4	5
Total	75	100

Results show that farming was the most prevalent activity, with 56% of the mothers participating in farming as their main occupation. Housewives constituted 13% of the mothers and 17% undertook small-scale business. Only 8% worked in permanent employment. These results suggest that approximately 91% of the mothers had informal work. Their occupations were thus compatible with childcare. These results are consistent with findings from other studies which show women in agriculture indicating full time child care because their occupations were compatible with child care. (Engle, 1989, Paolisso et al., 1989, NACECE, 1995)

**Table 4.3: Frequency and percentage of number of children per family**

Number of children	Frequency	%
1	39	52
2	22	29
3	4	5
4	8	11
5	2	3
Total	75	100

Results on family size show that 52% of the families had only one child, and 29% had 2 children. The mean number of children per family was 2 showing that families had few children. This is below the national average (4.7), the rural average (5.2) and urban average (3.5) (CBS 2000). The fact that mothers were still in their child-bearing years and had not reached their intended family size could account for the small family size.

Family type was considered an important variable because it reflects the availability of extended family for childcare support. Results show that 71% of the families were nuclear. Only 29% lived with extended family members who included grandmothers, aunts, and male and female cousins.

Table 4.4 presents results on children's age.

**Table 4.4: Frequency and percentage of children's age**

Children's age	Frequency	%
Below 2 years	47	63
2-4 years	21	28
4-6 years	7	9
Total	75	100

Results on children's age indicate that in 63% of the families, the age of the youngest child was below 2 years. For 28% of the families, the youngest child was aged 2-4 years. These age groups are the most dependent on a caregiver and thus require childcare arrangements that meet their high dependency.

Family income was examined. Income influences childcare because some childcare arrangements like daycare and hired house helps require payment of a fee. Families that cannot afford to pay such fees would thus not use such arrangements. Results on income showed that 37% of the families earned 3001-6000 shillings per month, 21% earned between 2001-3000 and 19% earned 6001-8000 shillings per month. According to the CBS household budget survey (1994), households with less than ksh.10,000 total expenditure per month, fall in the lower income group. This clearly shows that families were low-income earners.

### 4.3 CHILDCARE ARRANGEMENTS

This section examines the arrangements made by families. To obtain this information, first, mothers were asked to identify the predominant caregiver and other caregivers used as alternative caregivers. Second, they were asked to state the place where childcare was undertaken and the mode of remuneration for caregivers. The classification of childcare arrangements was made after analysis of this information. Childcare arrangements were classified as either predominant or alternative arrangements. The predominant arrangements were those that were made on a daily basis while the alternative arrangements were made when the predominant caregiver was unavailable. Results on predominant childcare arrangements are summarized in Table 4.5.

**Table 4.5: Predominant Childcare Arrangements made by Families**

Predominant childcare arrangement	Frequency	%
1. Maternal care	53	71
2. Nursery school	13	17.
3. Childcare support by extended family	4	5
4. Childcare support by siblings	3	4
5. House help	1	1
6. Child left unattended	1	1
Total	75	100

Results indicate that 71% of the families used maternal care as their predominant childcare arrangement. The nursery school was used by 17% of the families. Only 5% percent used support from extended family and 4% used sibling care. The responsibility for childcare therefore appeared to be taken up by mothers. These results are consistent with many past studies. Engle (1989) showed that mothers in rural Guatemala spent most of their time on childcare. Mothers in rural Kenya were also shown to be the main caregivers of the children during the early months of childhood. (Paolisso, 1989; NACECE, 1994). Results on sibling care however, differ with findings from studies in Kenya which show that sibling care was prevalent (NACECE 1995). This shows that child care arrangements vary in different localities.

Alternative arrangements were used when the predominant caregiver was not available. The alternative arrangements examined were those used when the mother was not available. Also considered were alternative arrangements to the nursery school.

Table 4.6 shows results on alternatives arrangements.

**Table 4.6: Alternative arrangements made by families**

Alternative arrangement	Predominant caregiver unavailable	
	Mother	Nursery school
No alternative childcare arrangement	24(46%)	---
Maternal care	---	2 (14%)
Childcare support by extended family	15(29%)	3(21%)
Childcare support by siblings	6 (12%)	6(43%)
Childcare support by neighbours	1 (1%)	2 (14%)
Total	52 (100%)	14 (100%)

Results on alternative arrangements show that 46% of the families did not make any alternative arrangement. This meant that these mothers were the only caregivers and carried their children everywhere they went. Results also show that for 26% of the families, support by extended family was the alternative arrangement used when the mother was unavailable. Only 12% used sibling care as an alternative arrangement. This shows that extended family were the preferred alternative caregivers. This is similar with other findings which show extended family as the preferred alternative caregivers (Myers, 1992).

Families which used the nursery school as the predominant arrangement, made various alternative arrangements, after school hours. Results show that 43% of the families used sibling care, 21% used extended family as the alternative arrangements and 14% used mothers and neighbours respectively. This shows that siblings were the main alternative caregivers for pre-schoolers (3 – 6 years). Extended family was also a preferred alternative arrangement for children of this age.

#### 4.4 REASONS FOR THE CHOICE OF CHILDCARE ARRANGEMENTS

This section established reasons for the use of the various childcare arrangements.

Reasons for the choice of child care arrangements are shown on table 4.7.

**Table 4.7: Reasons for choice of maternal care**

Reason	Frequency	%
1. No one else available	31	37
2. Mother can handle both work and childcare	15	18
3. Mother's preference	14	17
4. Child is too young	10	12
5. Child will be harmed	6	7
6. Do not want to burden people	5	6
7. Others	3	3
Total no. of responses	84	100

• Multiple responses allowed

The major reason for use of maternal care was lack of caregivers with 37% of the mothers stating that they undertook childcare for this reason. The mother's type of work also influenced the choice of maternal care. Of the mothers who reported care of their own children, 18% did so because their work was compatible with childcare.

Other reasons stated for the choice of maternal care were based on the mother's convictions regarding childcare and caregivers. For instance, 17% of the mothers stated that they preferred to take care of their children because they perceived that only they could provide good care. Mothers also preferred to undertake care of infants because they were too young to be left with someone else. In addition to this, there was also mistrust of other caregivers. These reasons could explain why families had maternal care as their only childcare arrangement.

With regard to childcare support from extended family, the main reason for use of this arrangement was the availability of extended family members and their willingness to undertake childcare. They were also chosen because they were trusted as caregivers. Mothers reported that they were satisfied with childcare provided by extended family because they found their children fed and changed. This could explain why extended family were the preferred choice as alternative care-givers.

With reference to sibling care, availability of siblings to undertake childcare after school hours and weekends was the main reason for using this arrangement.

Neighbours with whom the mother had a good relationship were approached for childcare support when mothers needed to do tasks such as fetching water and collecting firewood.

The presence of such neighbourhood support networks therefore provided childcare in times of need.

#### 4.5 THE RELATIONSHIP BETWEEN SELECTED DEMOGRAPHIC VARIABLES AND CHILDCARE ARRANGEMENTS

In this section the relationship between demographic characteristics of the sample and childcare arrangements was examined. Chi-square was used to test whether there was a relationship between demographic characteristics and the use of predominant childcare arrangements. The demographic variables considered were; mother's age, mother's education, children's age, family size, marital status and family income. Table 4.8 shows chi-square results on the relationship between mother's age and childcare arrangements used.

**Table 4.3: Chi-square results for mother's age and childcare arrangements**

Childcare arrangement	15 – 25 years	25 – 40 years
Maternal care	33 (44%)	23 (30%)
Other childcare arrangements	5 (7%)	14 (19%)
Total	38 (51%)	30 (49%)

$X = 7.08$      $P = 0.05$      $df = 1$      $n = 75$

Results show a significant relationship between mothers' age and childcare arrangements. Majority (44%) of the mothers who were aged 15 – 25 years used maternal care as the predominant arrangement while only 30% of those aged 25 – 40 used it as the predominant arrangement. With reference to the use of other childcare arrangements, 19% of mothers aged 25 – 40 years used other childcare arrangements compared to 7% for those aged 15 – 25 years. These results suggest that younger mothers used maternal care more than older mothers. The opposite was true of the use of other childcare arrangements. Older mothers used other arrangements more than younger mothers. This could be because younger mothers had infants who were more dependent on the mother due to breastfeeding, thus requiring her to undertake childcare. On the other hand, older mothers had older children for whom other arrangements such as the nursery school could be made.

With regard to the mother's educational level and childcare arrangements, the following results were generated.

**Table 4.9: Chi-Square results for mother's educational level and childcare arrangements**

Childcare arrangement	Primary school	Secondary school and above
Maternal care	43 (57%)	14 (19%)
Other childcare arrangements	11 (15%)	7 (9%)
Total	54 (72%)	21 (28%)

$X = 1.83$      $P = 0.05$      $df = 1$      $n = 75$

There was no significant relationship between mother's educational level and childcare arrangements. The mother's education therefore did not influence the choice and use of childcare arrangements.

The relationship between children's age and childcare arrangements was considered and results shown in table 4.10.

**Table 4.10: Chi-square results for children's age and childcare arrangements**

Children's age	Under 2 years	Over 2 years
Maternal care	45 (60%)	11 (15%)
Other childcare arrangements	2 (3%)	17 (23%)
Total	47 (63%)	28 (38%)

$X = 30.3$        $P = 0.05$        $df = 1$        $n = 75$

Chi-square results show that there was a significant relationship between children's age and use of childcare arrangements. Maternal care was the predominant arrangement for 60% of the children who were under 2 years. Only 3% of children under 2 years of age had non-maternal arrangements made for them. With regard to children over 2 years, 23% had non-maternal predominant arrangements. Results clearly indicate that mothers undertook care of children aged 2 years and below. Non maternal arrangements were made for children over 2 years. These results support mother's reports which showed a preference for undertaking care for infants.

Concerning the relationship between family size and childcare arrangements, the following results were generated.

**4.11: Chi-square results for family size and childcare arrangements**

Childcare arrangement	1 child	More than 1 child
Maternal care	31 (41%)	22 (29%)
Other childcare arrangements	8 (11%)	14 (19%)
Total	39 (52%)	36 (48%)

$X = 2.32$      $P = 0.05$      $df = 1$      $n = 75$

There was no significant relationship between family size and childcare arrangements. The number of children a family had thus did not affect the use of childcare arrangements.

**Table 4.12: Chi-square results for income and childcare arrangements**

Childcare arrangement	Below 6000	Above 6000
Arrangements requiring fee	11 (15%)	2 (3%)
Arrangements without fee	35 (46%)	27 (36%)
Total	46 (61%)	29 (36%)

$X = 3.53$      $P = 0.05$      $df = 1$      $n = 75$

The relationship between family income and childcare arrangements was determined. It may be assumed that families with higher income would use the childcare arrangements requiring the payment of a fee, such as the nursery school or househelp, more than families with lower income. However, results show that there was no significant

relationship between income and childcare arrangements. This shows that the use of childcare arrangements that required the payment of a fee, such as nursery school was not influenced by income.

#### 4.6 CHILDCARE ACTIVITIES

In this section, the childcare activities undertaken by caregivers of the predominant childcare arrangements were examined. It was in these arrangements that most childcare activities took place since they were made on a daily basis. Furthermore, child development is influenced by these constant experiences of childcare. Information on childcare activities was obtained from the families' responses on childcare activities undertaken by the predominant caregivers. The childcare activities were categorized into 5 groups. These groups were generated from the developmental needs that the childcare activities met and included physical care, affection, stimulation, socialization and health and hygiene.

Physical care included childcare activities that ensured that physical needs were met. These were feeding or supervising feeding, putting to sleep, dressing and watching (baby sitting). Affection consisted of activities that provided warmth and security such as holding, comforting, smiling, touching and breastfeeding. Under stimulation were activities that provided cognitive stimulation. They included play, provision of play items, talking, singing and entertaining. Socialization referred to activities that promoted appropriate social behaviour and self-awareness. It incorporated activities such as toilet training, training in self-care, punishment of inappropriate behavior, and sending on

errands. Health and hygiene represented activities geared towards environmental and personal hygiene, good food handling practices and prevention and care of illness. These included bathing, changing soiled clothing, washing hands, providing care during illness and taking for immunization. Qualitative results from observations of childcare activities were used to supplement the findings and draw inferences on their implications for child development.

Table 4.13 summarizes the childcare activities undertaken in the predominant childcare arrangements.

**Table 4.13: Childcare activities undertaken by caregivers of predominant childcare arrangements.**

Childcare arrangement	Physical care	Affection	Stimulation	Socialization	Health / hygiene
Maternal care	53 (72%)	53 (80%)	52 (72%)	53 (75%)	50 (89%)
Nursery school	13 (18%)	7 (11%)	13 (18%)	13 (18%)	0 -
Childcare support by extended family	4 (5%)	3 (5%)	3 (4%)	2 (3%)	3 (5%)
Childcare support by siblings	3 (4%)	2 (3%)	3 (4%)	2 (3%)	3 (5%)
House-help	1 (1%)	1 (2%)	1 (1%)	1 (1%)	1 (2%)
<b>Total</b>	<b>74 (100%)</b>	<b>66 (100%)</b>	<b>72 (100%)</b>	<b>71 (100%)</b>	<b>57 (100%)</b>

Results on childcare activities undertaken by mothers indicate that they constituted 72% of the predominant caregivers who provided physical care, 80% of those who provided affection, 72% who undertook activities for stimulation, 75% for socialization, and 95% for healthcare. This shows that mothers were the major caregivers. It also shows that childcare by mothers catered for the physical, cognitive and psychosocial needs of children. Since holistic care was provided, maternal care has positive implications for child development.

Observations of the specific activities revealed that the main requirements for child development were met. Feeding consisted of three meals in a day with breastfeeding in between meals. The diet comprised sorghum and millet porridge, rice and vegetable stew, mashed potatoes with pumpkin leaves and cows milk. This diet was adequate for normal growth and development although the lack of fruit may have compromised of provision of vitamins.

There was intimate, affectionate interaction through holding, touch and eye contact when feeding, bathing, breastfeeding and putting to sleep. Affectionate interaction has been shown to influence child development through formation of early attachment and development of a sense of security and trust. The child is thus able to explore the physical and social environment. These experiences enhance their social and cognitive development (Bornstein & Lamb, 1999). Close intimate interactions are also important in emotional development since they are significant determinants of major personality

characteristics relating to trust, optimism and confidence. They are also important in the development of healthy self esteem (Erickson, in Bornstein & Lamb,1999).

There was verbal interaction which took place during feeding, bathing and as the mother undertook other household tasks. Verbal interaction has been shown to be a foundation for language development. The extent to which children obtain opportunities to listen and respond to adult conversation determines the development of vocalization (Snow et al 1998). Play was observed to be done during feeding, bathing and when household work was done. It consisted of allowing the child to climb on the caregiver, shaking of play items and bouncing the child on the knee. The caregivers thus facilitated movement and this would help the child in acquisition of motor skills. Play also occurred through provision of play items to keep the child busy while the mother worked. For instance a mother would place simple household items like tins, spoons, a packet of detergent, a torch, a jar of petroleum jelly or a jerry can, within the child's reach in order to encourage play. This provided cognitive stimulation in various ways. Play items provided visual stimulation which is important for development of eye muscles in infancy. Visual stimulation also enhanced the development of neural connections in the brain. Manipulation of play items served to develop skills such as eye hand co-ordination. Not all mothers provided play items. Observations of one family showed that the child was left lying on the ground crying, while the mother cultivated. This shows that provision of cognitive stimulation differed from caregiver to caregiver.

Social stimulation occurred as the caregivers and visitors sung, entertained and talked to the children. These experiences develop social competence in children because the learning of social behaviour is dependant upon guidance by older individuals (Gessell,1971). This means the taking of turns in acting and reacting. Children also learn to affect the behaviour of others through sending of signals. (Cohn; Campbell & Ross, 1991).

Affectionate interaction was observed especially during breastfeeding. There was intimate interaction as the mothers and children communicated through touch. Affection was also displayed through holding children. This was done to comfort them when they cried. Children were also carried, strapped on the back with a cloth. These close intimate interactions are crucial in developing a sense of trust ( Erickson ,in Bornstein & Lamb, 1999). They are also important in the formation of early attachments. These early attachments are critical determinants of subsequent social and cognitive growth.

Regarding childcare activities carried out in the nursery school. Child developmental needs were not fully met. Results suggest that 18% of the caregivers provided physical care, 11% provided affection, 13% stimulation, and 18% socialization. There were no responses for provision of health mainly because when children were ill, care was provided by the mothers, rather than the nursery school. Further, the nursery school under observation had no first aid box. This reinforced the fact that no health care was undertaken. With reference to hygiene there were no responses, however observations

showed that children's hands were sometimes washed before meals, which meant that an aspect of hygiene was carried out.

Play was a major activity for children at the nursery school. There were both organized and informal play activities. In organized play, the teacher played with the children and taught them games. Play activities consisted of running and marching games, skipping and singing games in a circle. Informal play was unstructured and children played freely. Play items were tyres, tins, sticks and bundles of cloth used to make dolls. The boys played with tyres and the girls were involved mainly in social dramatic play with the "dolls". Young children played with soil. There were thus many and varied types of play, experienced by children. These were valuable in motor development and acquisition of cognitive and social knowledge (Fuhrman and Buhrmester, 1982, Bales, 1998; Reschke, Longe and Barber, 2002). Other activities that were positive for stimulation included verbal interaction. The teacher talked to the children as she taught and cared for them. There was also verbal interaction amongst the children themselves. Research shows that verbal input is important for cognitive growth because it introduces the child to words, concepts and new parts of the world. This input stimulates the process of assimilation and accommodation essential for cognitive development (Snow et al, 1998; Sonderman et al, 1982)).

Activities for socialization included teaching social habits such as eating only on the scheduled mealtime, sharing food, eating while seated and washing hands before eating. Children were also taught to go to the toilet. The teacher was not the only agent of

socialization. Older children also socialized the young children especially through role-play. Research shows that young children are socialized during peer interactions because they imitate the behaviour of older children (Fuhrman and Buhrmester, 1982).

Classroom activities included singing, learning the alphabet, numbers, reading and writing of three letter words. This was mainly taught to the pre-schoolers. Children aged below three years were kept seated while the others learned. These children therefore did not fully participate in classroom activities. They appeared to mindlessly repeat the alphabets, numbers and words that the older children said. However they showed enjoyment of the singing. Because they did not participate in learning, they were noisy and playful and compelled the caregiver to keep them under control. This was done through quickly settling their fights, threatening to pinch them and comforting crying children. When they became too noisy they were sent out of class to play. Classroom activities for these children were therefore not appropriate for their age and this would have implications of low cognitive development. (NICHD, 2000).

With reference to childcare support by members of the extended family, results show that caregivers provided physical and affectionate care, stimulation, healthcare and socialization. This shows that childcare activities carried out by extended family members met the physical, cognitive and psycho-social needs of children and was therefore holistic care. Observations support these results. The caregiver engaged the child in verbal interaction as she supervised feeding, bathing, dressing and play. Although the caregiver did not play with the child, she supervised play, usually giving a

warning when the games were dangerous. Play items were improvised from the environment. For instance a see-saw was made by balancing a piece of wood on a fence. Socialization was done through sending the child on errands, training the child to feed, wash and dress himself and reprimanding wrong behavior. Affectionate interaction was done by holding, talking to the child in a pleasant tone and buying treats for the child.

By supervising feeding, bathing and dressing, the caregiver ensured that the child received adequate food for growth and development. She also ensured that hygiene was observed. This was important for prevention of illnesses and maintenance of good health. Although the caregiver did not play with the children, she supervised play usually giving verbal warning when the games posed the risk of injury. Play included running, climbing, pulling and rough tumble play. This kind of play is beneficial for learning of complex movements and develops the adaptability of the child to new motor skills. (Gesell, 1971). Play also enhances cognitive and social learning. (Fuhrman and Buhrmester, 1982).

Verbal interaction took place as the caregiver supervised feeding, bathing, dressing and play. This was beneficial to language and cognitive development. (Snow et al 1998). Affectionate interaction was done by holding, talking to the children in a pleasant tone and buying treats for them. Children receiving responsive, warm and supportive care have been shown to have more positive interactions with adults and peers and exhibit social competence in later life (Vandel & Powers 1983). Socialization was done through

sending children on errands, training the child to feed, wash and dress and reprimanding wrong behaviour. These experiences enhance social development and enhance independence. (NICHD 2000).

Responses on childcare activities carried out by siblings suggest that they contributed to all aspects of childcare except provision of health and hygiene. However these results differed with observations. Observation of a two year child whose caregiver was a four year old sibling revealed that childcare activities comprised child minding, and play. This arrangement was characterized by its lack of care activities that were appropriate for developmental needs. Feeding, health care and hygiene were not undertaken. The child was also left unattended when the sibling went away to play.

There was little affectionate interaction. The child was not comforted on crying. On interviewing the sibling on how to respond when the child cried, the sibling stated that she left the child alone or promised to buy a sweet. This clearly shows that the caregiver had no skills for comforting a child. These observations show that not all siblings were able to provide holistic care. Those that were young and immature were limited in the childcare activities that they could undertake. This is consistent with findings from Swadener (1995) who showed that sibling care by very young children in Kericho, Kenya, was deficient in holistic care.

This arrangement had negative implications for child development. Lack of feeding meant that the child did not get adequate food for normal growth and development. This can result in stunted growth. It also meant that the child was apathetic and had no energy for play and exploration of the environment. Absence of these experiences would result in few opportunities for stimulation and thus negatively affect cognitive development.

Absence of affectionate interaction meant that the child's emotional needs were not met. This has implications for development of feelings of mistrust and fear of dependency and could result in deficiencies in development of healthy self esteem and other social and cognitive growth in later life (Bornstein & Lamb 1999). Since the caregiver was immature, she was limited in provision of health and hygiene. This posed health risks such as diarrhea and other infections caused by poor hygiene.

There were positive aspects to this arrangement especially through play. This was main activity undertaken by the sibling caregiver and consisted mainly of socio-dramatic play in which the children pretended to cook, eat or go to nursery school. Play items included tins, leaves, sticks and a bag. Socio-dramatic play is important for cognitive development because it provides children with frequent opportunities of improving numerous cognitive, creative and social skills through role taking. (Fuhrman & Buhrmester, 1982)

#### 4.7 CHILDCARE ENVIRONMENTS

In this section the childcare environments were examined. The childcare environment influences child development as the child interacts with it. Although the child's environment does not directly affect the basic progression of development, it helps to reinforce many of its aspects. In this study, the elements of the environment examined were, physical space, opportunities for stimulation, social contact, safety, and sanitation.

Physical space consisted of floor space and outdoor spaces available for play and exploration. This influences motor sensory development as well as cognitive development since children explore and discover when they play. Opportunities for stimulation included enriching experiences and objects. Examples of stimulating play items were, bright noisy toys (for young children aged up to 6 months), objects that encourage pushing and pulling, and balls (for older children), household items that provide opportunities for filling, dumping, collecting and gathering, old clothes, hats, jewellery, shoes and tins, plates and cups (for imaginative play). Enriching experiences, and objects help the brain to strengthen neural connections as well as make new ones. This positively influences cognitive development.

The social environment included people who surrounded the child. Social behaviour is sensitive to environmental influence because it requires guidance by an older individual. As caregivers interacted with the child they helped in the acquisition of self awareness, and social skills. Safety included the prevention of accidents through the removal of sharp objects, toxic substances like paint, detergents and medicine, dangling appliance

wires, hot objects, grocery bags which can cause suffocation and standing water which can cause drowning. The elements that made for sanitation were availability of water, sewerage, garbage disposal and cleanliness of surroundings. Data were obtained primarily from observation of the dominant childcare environments. These included the homes, farm, business premises and nursery school.

#### 4.7.1 The Homes

There were two types of home environments. These were rented rooms which consisted of one or two rooms and those which consisted of a house in its own compound. Such houses were owned by residents and had bedrooms, a living room and a separate outdoor kitchen. Majority (80%) of the families lived in rented rooms.

With regard to space, the rented rooms were crowded while those owned by residents afforded more space. This affected play activities. Observations of a child who lived in a one roomed home showed that play was restricted to crawling on a sofa. The child therefore was not encouraged to move about. On the other hand children whose homes had a compound, were observed to play games requiring a lot of movement such as, pretend play, tug of war, running, and see-saw. Children master and adapt to complex and new motor movements when they exercise their ability to move around. Motor skills once acquired and mechanized not only present greater freedom for adjustment to new situations but also serve as essential preparation for development of higher more refined skills for later years. (Gesell, 1971).

Play objects were numerous in the homes as there were several household items to manipulate. Examples of such items were tins and spoons to bang, a jar of petroleum jelly, tablecloths, bedcovers, a torch, a packet of detergent, and tins and lids for use as utensils during pretend play. These items provided children with opportunities for cognitive growth. In terms of social contact, children in the homes had social interactions with caregivers, and neighbours and friends who visited. Interactions consisted of talking, entertaining and play with the children. These social interactions influenced the development of social skills through guidance to such behaviours as holding objects, cooperating with feeding, and responding to other people's social overtures.

Indicators of sanitation were availability of water supply, waste disposal and toilet facilities. Observations of water supply showed that it was collected from communal taps situated in some compounds, and these had water for limited periods of time. Some areas of the village had no water points and water was fetched from a nearby stream. Sewerage was poor. There were ditches overflowing with wastewater, outside the homes. Toilets were also overflowing. Garbage disposal was poor as garbage collection points were full due to uncollected garbage. Children were observed to play at the garbage collection points and alongside the ditches with waste water. They were thus exposed to unsanitary conditions through playing with items in the garbage and handling their play items which fell in the ditches. This would inhibit child development because of exposure to water borne infections such as diarrhea and typhoid which result in depletion of nutrients needed for the growing child.

Safety from accidents was provided in various ways. For instance, pushing a table against a sofa where a child played in order to prevent falling. Keeping in close physical proximity to a child playing on the floor was also done so as to prevent crawling to hot objects like a charcoal stove. Safety outdoors was ensured by actions such as removal of animal and human excreta and pouring away of standing water from a basin. Supervision of play was also done from time to time to prevent accidents. These were preventative measures taken to reduce incidents that would result in serious injury or trauma to the child and thus delay normal physical development.

#### 4.7.2 The Farm

In the farm environment, there was physical space for play because the land holdings measured a quarter of an acre. However it lacked objects that would stimulate a child. Observations of a five month old in a farm showed that the child was laid on the ground with no play items or visuals to stimulate the child. For a child of this age, the farm environment lacked the enriching experiences of visual stimulation. It also lacked experiences for manipulation of objects which help the child to develop command of muscles needed to grasp, transfer and manipulate objects.

The social environment consisted only of the child's caregiver as there were few people in the farms and even those were busy cultivating. There was therefore very little social interaction and this had negative implications for social development in two ways. First, it would negatively affect vocalization because encouragement to vocalize occurs during

social interactions. Secondly lack of social interaction creates a vacuum for development for social skills which are dependant upon guidance from an adult or older child.

In terms of sanitation, the farm environment was free of waste water and garbage unlike other environments. Safety was provided by placing the child on a sack to keep soil and other sharp objects on the ground from harming the child. The farm environment could thus be said to be positive in terms of sanitation and safety but poor for cognitive and social stimulation.

#### 4.7.3 The Nursery School

In the nursery school, physical space consisted of a classroom and an open field. Observations of physical space showed that the classroom was adequate for learning activities. Children were accommodated with ease and there was space in between furniture showing that there was no crowding. Outdoor space was adequate for play because there was a large compound. Children were observed to run, and play various games. Objects for outdoor play included car and bicycle tyres, tins, sticks and stones. These encouraged vigorous physical play and would thus reinforce development of complex movements and acquisition of motor skills ( Gesell, 1971).

Regarding objects for stimulation, there was an attempt to provide visually attractive materials on the classroom walls, using locally available materials. However there were no materials for supplementary socio-cognitive learning such as household items at a home corner, and shop items for a shop corner. Lack of exposure to such socio- cognitive experiences meant that children merely obtained academic learning.

With regard to classroom activities, they were structured to academic learning and preparation of children for primary school. These were mainly offered to children aged three years and above. Children aged below three received no academic instructions and rather sat idly while the others learned. Writing materials were also only provided to children over three years. The younger children who could have benefited from early introduction to manipulation of writing tools were not given these materials and thus were denied important opportunities for their development. This shows clearly that the classroom environment was not age appropriate for under three year olds.

The children's social environment consisted of the teacher and peers. With respect to the teacher, she was warm in her manner to the children. She was also interested in the children and was able to describe each child's unique behaviours. Research demonstrates that teachers who are caring of children provide the social and emotional support that children need to approach, engage and persist in learning and develop positive self perceptions and values (Eccles & Roeser 1996). However the teacher to child ratio was higher (twenty children for one caregiver) than is recommended. (Less than twenty children for two caregivers). The high teacher child ratio undercut the teacher's ability to have meaningful social interaction with each child. Rather she spent more time in management and control interactions especially for the under three year olds. This meant that there was less stimulation for this age group and they obtained very little cognitive development from their nursery school experience.

The peers were observed to be important socializing agents for children. It was observed that the older girls played as mothers to the younger girls in socio-dramatic play. The older boys served as models to the younger boys who were observed to imitate them as they pretended to drive cars. The children thus reinforced masculine and feminine activities. Socio-dramatic play was important for social and cognitive development. The experience of developing and acting out social fantasies is believed to improve numerous cognitive, creative and social skills (Furhman and Buhrmester 1982).

In terms of sanitation, toilet facilities consisted of only one toilet for twenty children. Maintaining cleanliness in the toilet was difficult and exposed children to unhygienic conditions. There was no water supply in the nursery school and so water was obtained from a neighbouring compound. Activities for hygiene such as washing of hands before eating were therefore done only when water could be obtained. Poor hygiene is a cause for illness and many incidences of ill health can inhibit a child's development. Safety was ensured by supervision of play by the teacher. However, on two occasions it was observed that the teacher was absent while the children played. On one such event an accident occurred and an injured child did not have anyone to provide assistance. Such incidences have potential to set back development if a child undergoes trauma or injury.

#### **4.7.4 The business premises**

The business premise observed was a shop. In terms of physical space, it was restricted because shelves and a counter took up space. The child therefore, played on the little

floor space available. Little space for play meant that there was little reinforcement of motor skills. With regard to cognitive stimulation, there were a variety of items to stimulate the child. These were bright and noisy items from the shop which have value for providing enriching experiences that help the brain make new neural connections. The social environment was appropriate for development as it consisted of the care giver and customers, friends and neighbours. The child therefore had social interaction with various people who entertained and talked to the child. The sanitation situation was similar to that of the homes and was therefore poor. There were no physical threats on the shop floor thus safety was ensured.

## CHAPTER FIVE

### SUMMARY CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 SUMMARY

The major focus of this study was to determine the childcare arrangements families made, and the childcare activities and environments entailed in each arrangement. Specifically the objectives of the study were; to establish the types of childcare arrangements made by families; to determine the reasons influencing their choice; to describe the childcare activities entailed in the childcare arrangements; to describe the environments in which childcare took place and; to examine the relationship between selected demographic variables and childcare arrangements.

A descriptive survey design was used. A questionnaire was administered to mothers of 75 families, randomly sampled from households in Maina village. Observations of caregivers and children were made for a sub-sample of seven families drawn from the 75 families. Data was analyzed using frequencies percentages and chi-square. Qualitative analysis was done for observations.

Results showed that mothers were the predominant caregivers. About 71% of the families used maternal care as the predominant arrangement. Other arrangements were the nursery school (17%), childcare by extended family members (5%) and sibling care (4%). Alternative arrangements were those that were made when the predominant caregiver was not available. The alternative arrangement made when mothers were not available was childcare support by extended family. Alternative arrangements made by families

with nursery school children were sibling care and childcare support by extended family. Results on reasons for the choice of childcare arrangements indicated that non availability of other caregivers, the compatibility of mother's occupations with childcare and the mother's preference to undertake childcare of infants contributed to the prevalence of maternal care as an arrangement. The nursery school was chosen as a learning centre for preschoolers and a childcare centre for two year olds. The demographic factors that influenced choice of childcare arrangements were mother's and children's age.

Findings on childcare activities revealed that mothers provided physical care, stimulation, socialization, and provision of affection health and hygiene. Mothers therefore provided holistic care. However observations of childcare activities by mothers showed variations in the way different mothers provided stimulation through play. Therefore specific implications for child development would vary from caregiver to caregiver.

Childcare activities in the nursery school consisted mainly of activities for physical care and socialization. This implied that childcare was not holistic. Children under three in the nursery school were especially disadvantaged because learning activities and materials did not cater for their needs. Results on childcare activities undertaken by siblings showed that activities carried out differed depending on the maturity of the caregiver. Sibling care by caregivers who were too young to undertake childcare tasks had negative implications on child development.

Results on childcare environments showed that they varied in terms of stimulation, safety, and space. The homes and nursery school were the richest in stimulation and

provision of opportunities for socialization. Space for play was provided in the nursery school. However the environments were characterized by poor sanitation.

## 5.2 CONCLUSIONS OF THE STUDY

On the basis of the findings the following conclusions were made:

1. The main childcare arrangement was maternal care showing that mothers took the responsibility for childcare especially during infancy. However, childcare was also delegated to members of the extended family and siblings. The nursery school was a childcare arrangement for preschoolers and was mainly used as a learning centre.
2. Maternal care had positive implications for child development as mothers provided holistic childcare. Since maternal care was the arrangement made especially for infants, children at this age were at an advantage for optimal development.
3. Sibling care differed depending on the maturity of the caregiver. Immaturity therefore restricted the ability of the caregiver to provide holistic care and therefore had negative implications on child care. If used as a predominant arrangement it would expose children to the risk of debilitated development.
4. The nursery school and sibling care (when the sibling was immature) did not meet all the required child developmental needs, because childcare activities included mainly custodial care, socialization and play. Since children in nursery school were most likely to have sibling care as their alternative arrangement, they were

most at risk of developmental problems. The most vulnerable children in the nursery school were the 2 years olds who did not even participate in any learning activities.

5. The nursery school and home environments were the most appropriate for child development.

### 5.3 RECOMMENDATIONS

The recommendations of the study were:

1. Programmes which support and educate caregivers, especially mothers should be offered in Maina village. These programmes should include parental education, training in childcare and development and home visiting. Government departments such as the children's department and non governmental organizations such as the Child Welfare Society of Kenya (CWSK) can be involved in such interventions.
2. Nursery school teachers should be trained on child development so that they can provide age appropriate activities and materials to both preschoolers and younger children enrolled in the nursery school. Organizations which run nursery schools like the Catholic Church and the Nyahururu Municipal Council, can offer such programmes.
3. Recreational facilities in the nursery school should be expanded, through donor or corporate funding and local production by parents. These recreational activities could be available during weekends and school holidays when school is not in

session. This could help families take advantage of the nursery school environment to obtain space needed for their children's play activities.

4. Very young children (aged 2yrs) attending nursery school and getting sibling care as an alternative arrangement, should be targeted for intervention by organizations running nursery schools. Specific activities that are appropriate should be developed and teachers trained to implement them.
5. Siblings should be trained in health, nutrition and nurturing skills through the child to child programmes in order to provide more holistic care.

#### **5.4 RECOMENDATIONS FOR FURTHER RESEARCH**

1. This kind of research should be carried out in other areas especially in urban areas where the mothers are in full time paid employment. An in depth study of childcare services at childcare centers and those provided by house helps would present a wider view of the childcare situation in Kenya.
2. Factors influencing the choice of childcare arrangements in rural and urban areas should be compared.
3. A study should monitor the different effects of childcare arrangements on the development of boys and girls.

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**APPENDIX 1**

**QUESTIONNAIRE**

**PERSONAL INFORMATION**

1. Age:
2. Marital status:
3. Educational level:
4. Occupation:
5. Number of children: Under 2 years \_\_\_\_\_

Between 2 and 4 years \_\_\_\_\_

Between 4 and 6 years \_\_\_\_\_

6. Father's educational level:

7. Father's occupation:

8. Income (Kshs):

_____	Under 1000		
_____	1000 – 2000		
_____	2001 – 3000		
_____	3001 – 6000		
_____	6001 – 8000		
_____	8000	-	11000

ARRANGEMENTS MADE FOR CHILDCARE

9. a) Who is involved in taking care of the child most of the time?

- |                        |                                      |
|------------------------|--------------------------------------|
| _____ Mother           | _____ Sibling                        |
| _____ Grandmother      | _____ Child goes to nursery school   |
| _____ Father           | _____ Childminder                    |
| _____ Grandfather      | _____ Neighbour                      |
| _____ Relative         | _____ Friend                         |
| _____ Child left alone | _____ Any other individual (specify) |

9. b) Where is childcare undertaken?

9. c) What arrangement do you make with the caregiver concerning the care of your child? (if mother is not the caregiver)

9. d) What are the reasons for choosing this arrangement?

10. a) Who is involved in taking care of the child when the predominant caregiver is not available?

- |   |                                      |
|---|--------------------------------------|
| _____ Mother                                    | _____ Sibling                        |
| _____ Grandmother                               | _____ Child goes to nursery school   |
| _____ Father                                    | _____ Childminder                    |
| _____ Grandfather                               | _____ Neighbour                      |
| _____ Relative                                  | _____ Friend                         |
| _____ Child left alone                          | _____ Any other individual (specify) |
| _____ Predominant caregiver is always available |                                      |

10. b) Where is childcare undertaken?

10. c) Why do you choose this individual?

11. a) Are you satisfied by care given to your child by caregivers you mentioned?

11. b) Why?

### CHILDCARE ACTIVITIES

12. What are the childcare duties assigned to the caregiver?

- \_\_\_\_\_ food preparation
- \_\_\_\_\_ feed the child
- \_\_\_\_\_ play
- \_\_\_\_\_ food purchasing
- \_\_\_\_\_ taking care during illness
- \_\_\_\_\_ taking child for immunization
- \_\_\_\_\_ punishing unacceptable behaviour
- \_\_\_\_\_ talking to the child
- \_\_\_\_\_ bathing the child
- \_\_\_\_\_ purchasing or making toys
- \_\_\_\_\_ supervise sleep
- \_\_\_\_\_ domestic chores (cleaning the home, laundry)

\_\_\_\_\_ purchasing of household items

\_\_\_\_\_ fetching water

\_\_\_\_\_ fetching firewood

\_\_\_\_\_ farming

\_\_\_\_\_ any other (specify)

## **APPENDIX 2**

### **OBSERVATION GUIDE**

#### **PART A**

This will be used to obtain information on the physical setting of childcare.

Elements of the physical environment to be observed.

1. Physical space
2. Objectives and their arrangements
3. Sanitation
4. Social environment

#### **PART B**

This will be used to obtain information on care-giving activities. It will be used in observations of caregivers and children in the sub-sample.

1. Feeding
2. Playing/allowance for exploration and discovery/provision of objects
3. Dressing
4. Bathing
5. Talking to the child/entertaining
6. Socialization
7. Affectionate attention (comforting the child when upset, cuddling and other body contact, smiling eye contact)

Caregiver attributes:

1. Caregiver child relationship: (loving, aloof, hostile)
2. Caregiver competence: (Clumsy, skilful)
3. Caregiver concern for child: (inattentive, attentive, finishes other chores before attending to child who needs attention)

Observations will be recorded in an observation sheet.

Site of observation:		
Date:		
Time:		
Individuals present:		
Observation number:		
Major activity	Events occurring	Researcher's comments

## APPENDIX 3

Summary of childcare activities observed for five families of the sub-sample.

### MATERNAL CARE AT HOME

Family under observation: a housewife with her 8-month – old child:

1. Feeding: The child's meal consisted of porridge in the morning and evening, lunch at noon and breastfeeding in between meals. This consisted of rice mixed with carrots and liquid from stew, or a mixture of mashed potatoes with pumpkin leaves. Feeding was done with a cup or plate and spoon. The child sat on the caregiver's lap as she fed.
2. Bathing and dressing: This was done in the afternoon. Done methodically. First, the child was undressed leaving a t-shirt on. The eyes, ears, face and neck were wiped before completely undressing the child and washing her in a basin of warm water. The child was then dried, oiled and dressed.
3. Talking: Done as the caregiver interacted with the child. Usually the caregiver made a comment and the child made sounds in reply.
4. Play: The child played alone while the caregiver did household chores. Play items like a torch, doll, and packet of detergent were provided. When any of them were dropped the caregiver would retrieve them. In between chores, the caregiver would sit with the child and breastfeed. Play occurred between the caregiver and the child during such periods. This involved letting the child climb on her, shaking the play items to attract the child's attention to them, and bouncing the child on her knee.

5. **Affectionate interaction:** This was observed most during breastfeeding. There was non – verbal interaction which involved touch by both the caregiver and child. The child touched the mother's face and the caregiver, the child's hands and bottom. The pair also gazed at each other.
6. **Sleep:** The child slept in the afternoon. The caregiver breastfed the child on noticing that the child was sleepy. Signs of sleepiness were fussiness and rubbing of eyes. The child was laid on the sofa or a bed.
7. **Social stimulation:** Visitors and neighbours at the home talked, played and entertained the child. They also held and fed her. The child thus developed social skills with people other than the predominant caregiver.
8. **Leaving the child unattended:** During times when the mother had heavy duties like fetching water, she left the child alone on the bed for short periods of time.

## MATERNAL CARE AT THE FARM

Family under observation: a mother who carried her 5 – month – old child to the farm.

1. **Childcare tasks done prior to going to the farm:** These included feeding the child with porridge, and sponging down the child. The child was dressed in trousers, socks, vest and pullover. Food for the day was prepared and packed in a basket. Also packed were three old garments for changing. The child was carried on the mother's back when going to the farm.
2. **Feeding:** This was done at scheduled times: on reaching the farm (11a.m.) ,1 p.m., and 3p.m. The meals included porridge, mashed potatoes and pumpkin leaves and milk. The child was breastfed after meals. It was observed that the child did not like porridge and was thus force-fed. The feeding was done with a spoon and a glass tumbler, with the child sitting on the lap of the caregiver. The caregiver sung and rocked him to encourage him to eat.
3. **Talking:** This was done while the caregiver fed and cleaned the child. This usually involved asking him questions about what he was doing, i.e. you are looking at auntie? The caregiver also talked to the child when he was crying as a way of responding to his cries.
4. **Play:** This was provided mainly during physical care when wiping or feeding the child. He was observed to pick and drop a jar of oil, pull the covers of bed and reach for any item near him. In the farm however, there were no play objects. The child was left lying and crying on the ground while the mother worked.

5. **Sleep:** The child slept in the afternoon after breastfeeding. An umbrella was used to provide shade while he slept.
6. **Affectionate interaction:** The child was cuddled after feeding.
7. **Social stimulation:** This was absent as the child did not come into contact with other people at the farm.

## CHILDCARE AT THE NURSERY SCHOOL

Families under observation: Eight children aged between two and three years cared for in a nursery school alongside twenty children aged three to six years.

1. **Keeping the child under control:** The older children were taught while the younger ones sat at their table. The caregiver controlled the two-year olds so that she was free to teach the others. Controlling children was done by keeping them seated, settling their disputes, threatening to pinch them and comforting crying children. When the children became too noisy, they were sent out of class to play.
2. **Feeding:** This was at 10 a.m and 1 p.m. Sometimes children became hungry and wanted to eat before scheduled meal times but the caregiver restrained them. Children carried food from home. This comprised tea or porridge in plastic bottles, snacks like ugali or bread, a mixture of maize and beans, rice and potatoes, ugali and kale, mashed potatoes and pumpkin leaves. Most children ate with their hands. The caregiver supervised feeding, helped children to wash their hands before eating, opened the food containers, assisted siblings to share food and fed those who could not feed themselves.
3. **Talking:** The caregiver talked to the children in the classroom constantly. This was done when keeping children under control, during feeding and play.
4. **Sleep:** Any child who became sleepy during the day was placed on the table to sleep while learning and playing continued.
5. **Socialization:** This was done through both class and outdoor activities. During hours, children sung together with the older ones. They also imitated sounds of the

alphabet with the older children. The caregiver reprimanded them for wetting themselves and encouraged them to go to the toilet at short intervals. In outdoor activities, children were involved in role-play. The older girls carried and fed little children and the boys rolled tyre through imaginary bumps, petrol stations and restaurants. Before eating, children were required to wash their hands.

6. Affectionate interaction: This included comforting the children who cried by touching them, carrying them and talking to them.
7. Care giving by peers: Characteristic of this arrangement were childcare activities performed by older children. Feeding of the younger ones was delegated by the teacher to the older children. The older children were also observed to attempt to change soiled clothing of younger children when the teacher was not in. They also comforted crying children by touch and physical proximity.
8. Leaving children unattended: Children were left alone after they had settled for lunch. Sometimes the caregiver left in the morning if she had urgent tasks to do.
9. Play: The caregiver played together with the children during organized play. The teacher kept the young children between older ones so that they could involve them in their game. Organized play consisted of games played in the field. These included singing games and talking games like, "What is the time Mr. Lion?" During informal play, the teacher watched the children, settled their disputes and urged them to share the few play items.
10. Singing: This was done by all children in the classroom as part of learning activities. A selection of songs sung at the nursery school has been included.

Song for Language and Socialization:

<i>Baba nguthoma nahinya</i>	(father I will study hard)
<i>Niguo ngathukuma</i>	(so that I can earn)
<i>Mundu ukurega guthoma</i>	(one who refuses to study)
<i>Thutha agaituika ngombo</i>	(in future will become a slave)
<i>Thutha agaituika mukora</i>	(in future will become a thug)
<i>Na thu ya thirikari</i>	(and an enemy of the government)
<i>He mbeba He mbeba</i>	(give me money)
<i>Ndigacererwo</i>	(so that I don't get late)

Song for numbers:

One crocodile went to the river.

He said goodbye to his little children

He was going to see an elephant

And the croco, and the crocodile

Went to the river when there was a fight

Two crocodiles.....

Three crocodiles ...

Four, Five, Six, .... e.t.c.

## CHILDCARE SUPPORT BY THE SIBLING

Family under observation: a two-year old under the care a four-year old sibling who had been withdrawn from nursery school so as to provide care to the child.

1. **Feeding:** The caregiver did not feed the child; rather both children were fed when the mother came home from the farm. Sometimes neighbours fed the children. However, the mother stated that she left food in a cupboard but the caregiver did not feed the child.
2. **Play:** This was characteristic of the arrangement. The caregiver initiated the games, which were mainly role-play. The caregiver pretended to be a mother or a teacher. The caregiver also sung together with the child.
3. **Affectionate interaction:** When the child cried, she was left alone. In an interview, the caregiver reported that she left the child alone or sometimes comforted her by telling her that she would buy her a sweet.
4. **Socialization:** Role -play activities in which children pretended to cook and eat socialized the child. The child also imitated the sibling as they played and talked.
5. **Assisting the mother in childcare:** Apart from minding the child, the caregiver was also sent on errands. This included purchasing items for food preparation, moving a bucket of water that would have harmed the child and sometimes cleaning up the child when she soiled herself.
6. **Leaving the child unattended:** The caregiver left the child alone for a short period of time and went to play at a garbage collection point near the home.