REGIONAL INSTITUTE FOR POPULATION STUDIES
UNIVERSITY OF GHANA, LEGON

HOUSEHOLD SOCIO-ECONOMIC STATUS AND
CHILD DEVELOPMENT IN GHANA

STANISLAV AKEMBULA

10152706

THIS DISSERTATION IS SUBMITTED TO THE UNIVERSITY OF
GHANA, LEGON IN PARTIAL FULFILLMENT OF THE REQUIREMENT
FOR THE AWARD OF MA POPULATION STUDIES DEGREE.

JULY 2017
ACCEPTANCE

This dissertation has been accepted by the Regional Institute for Population Studies (RIPS), College of Humanities at the University of Ghana, Legon, in partial fulfilment of the requirement for the degree of Master of Arts (MA) in Population Studies.

Supervisor……………………………… Date………………………………

Dr. Pearl Kyei
DECLARATION

I, STANISLAV AKEMBULA, declare that except for other people’s research work which have been duly acknowledged by means of referencing, this work is the result of my own original research undertaken at the Regional Institute for Population Studies (RIPS) at the University of Ghana, Legon, and that this dissertation, neither a part nor the whole has been presented elsewhere for the award of another degree.

Student…………………………………… Date……………………………………

Stanislav Akembula
(10152706)
ACKNOWLEDGEMENT

The unending favour of the Most High God is the reason for where I am today and I am eternally grateful to Him. I also thank all those who contributed in diverse ways to the realization of this academic work.

I am particularly grateful to my supervisor, Dr. Pearl Kyei, for her immense support, guidance, corrections, comments and suggestions, which culminated in the production of this research piece. I say God richly bless you.

To the RIPS family, especially my MA colleagues and the PhD candidates, I am full of thanks for your support. I am also thankful to Charles Asabere for his insightful guidance throughout the data management process.

My gratitude goes to my family, especially to my lovely wife, Diana Achideem, for her unrelenting encouragement and love for me and to David Adumbire, my cousin who has been through every moment at RIPS with me and to my senior cousin, Peter Adatara, for his support and brotherly love.
DEDICATION

To my little angels
Yelsoma and Amoama, I love you!
ABSTRACT

Early childhood development forms the foundation for a productive adult life of every individual and to the progress of every nation. The socioemotional domain of development is the bedrock of this foundation. The numerous psychosocial problems that ravage individuals and our societies informed the objective of this study to examine the influence of socioeconomic status of households, social relations and quality of home environment on the socioemotional outcomes of children in Ghana. The study made use of data from MICS 2011 of Ghana. Informed by existing literature on the subject and the survey questionnaire, socioemotional development of children was measured by signs of aggression, emotional stability and social relations within the household environment. Based on past literature and appropriateness to the current study, the Ecological Systems Theory of child development was adopted as the theoretical foundation. The chi-square test of association was used to analyse the relationships between the dependent and each of the independent variables and the binary logistic regression model employed to determine the predictors of child’s socioemotional development. The analysis revealed that wealth status of households is not a significant predictor of child’s socioemotional development. Availability of children’s books, engaging children in social activities, leaving children with other children, the age and sex of child, and region of residence were the significant predictors of socioemotional development. Female children were more likelihood to have positive socioemotional development outlook. The same is said of older children as their development improved with increase in age in months. These findings informed recommendations for parents and household members to engage regularly in social activities with children. It was also recommended that children be allowed to use household objects for playing. It was further recommended that more research work should be done on the measures of socioemotional development, social relations and home environment in order to have uniformity in their measurements.
TABLE OF CONTENTS

ACCEPTANCE
DECLARATION ......................................................................................................................... I
ACKNOWLEDGEMENT ........................................................................................................... II
DEDICATION .......................................................................................................................... III
ABSTRACT ............................................................................................................................ IV

CHAPTER ONE ..................................................................................................................... 1
INTRODUCTION TO THE STUDY ......................................................................................... 1

1.0 Introduction ................................................................................................................... 1

1.1 The Concept of Child Development ............................................................................. 2

1.2 Socioemotional Development of Children ............................................................... 5

1.3 Background of the Study ........................................................................................... 8

1.4 Statement of the Problem .......................................................................................... 9

1.5 Significance of the Study .......................................................................................... 11

1.6 Research Questions ................................................................................................... 14

1.7 Research Objectives ................................................................................................... 14

1.7.1 General objective ................................................................................................... 14

1.7.2 Specific Objectives ................................................................................................ 15

1.8 Research Hypotheses ................................................................................................ 15

1.9 Outline of the Dissertation ........................................................................................ 15

CHAPTER TWO .................................................................................................................... 17
LITERATURE REVIEW ........................................................................................................ 17

2.0 Introduction ................................................................................................................ 17

2.1 Factors that Influence Child Development ............................................................. 17

2.1.1 Household SES and Child Development ............................................................. 18

2.1.2 Home Environment, Social Relations and Child’s Socioemotional Development ........ ......................................................... 21

2.1.3 Mother’s Educational Level and Child’s Socioemotional Development ............... 23

2.1.4 Other Sociodemographic Characteristics and Child’s Socioemotional Development ... 24

2.2 Theoretical Perspective ............................................................................................ 26

2.3 Conceptual Framework ............................................................................................. 29

CHAPTER THREE ................................................................................................................. 31
RESEARCH METHODOLOGY .......................................................................................... 31

3.0 Introduction ................................................................................................................ 31

3.1 Data .............................................................................................................................. 31
CHAPTER FOUR

4.0 Introduction
4.1 Univariate Presentation and Analysis of Data
4.2 Bivariate Analysis: Association between Dependent and Independent Variables

DATA PRESENTATION AND ANALYSIS

4.0 Introduction
4.1 Univariate Presentation and Analysis of Data
4.2 Bivariate Analysis: Association between Dependent and Independent Variables

4.1 Socioemotional Status of Children
4.2 Household Economic Status (Wealth Status)
4.3 Education of Household Head
4.4 Quality of Home Environment
4.5 Social Interaction with Child within Household
4.6 Early Childhood Development (ECD) Programme
4.7 Children’s Books or Picture Books
4.8 Child Left with Other Children
4.9 Sex of Child
4.10 Age of Child, Number of Children in Household and Household Size
4.11 Sex of Household Head
4.12 Mother’s Level of Education
4.13 Religious Affiliation of Household Head
4.14 Region of Residence
4.15 Type of Place of Residence
4.2 SES of Households and Socioemotional Development (SED) of Children
4.2.1 Education of Household Head and Child’s Socioemotional Development
4.2.2 Quality of Home Environment and Child’s Socioemotional Development
4.2.3 Social Interaction within Household and Child’s Socioemotional Development
4.2.4 Early Childhood Development (ECD) and Socioemotional Development
4.2.5 Children’s book and Socioemotional Development
4.2.6 Child Left with Other Children

3.2 Sample Design and Sample Size
3.3 Definition of Variables
3.4 Data Analysis Techniques
3.5 Limitations of the Data

CHAPTER ONE

1.0 Introduction
1.1 Systematic Literature Review

CHAPTER TWO

2.0 Introduction
2.1 Methodology

CHAPTER THREE

3.0 Introduction
3.1 Data Description

CHAPTER FOUR

4.0 Introduction
4.1 Univariate Presentation and Analysis of Data
4.2 Bivariate Analysis: Association between Dependent and Independent Variables

CHAPTER FIVE

5.0 Introduction
5.1 Multivariate Analysis

CHAPTER SIX

6.0 Introduction
6.1 Discussion

APPENDIX

A.0 Introduction
A.1 Data Codebook

INDEX

I.0 Introduction
II.0 Introduction
III.0 Introduction
IV.0 Introduction
V.0 Introduction
VI.0 Introduction
LIST OF FIGURES

Figure 2.2-1: Bronfenbrenner's Ecological Systems Theory of Child Development ........28
Figure 2.3-1: Conceptual Framework for SES and Child Development in Ghana ........30
Figure 4.1-1: Child's Socioemotional Status ..........................................................44
Figure 4.1-2: Household Economic Status (Wealth quintile) ..................................45
Figure 4.1-3: Education of Household Head ...........................................................46
Figure 4.1-4: Quality of Home Environment ............................................................47
Figure 4.1-5: Engage in Social Activities with Child within Household ....................48
Figure 4.1-6: Child Attends Early Childhood Education ..........................................49
Figure 4.1-7: Children's Books or Picture Books ......................................................50
Figure 4.1-8: Child Left with other Children for more than one Hour in a Week ......51
Figure 4.1-9: Sex of Child ..........................................................................................52
Figure 4.1-10: Sex of Household Head .................................................................53
Figure 4.1-11: Mother's Educational Level ..............................................................54
Figure 4.1-12: Religious Affiliation of Household Head ...........................................55
Figure 4.1-13: Region of Residence ........................................................................55
Figure 4.1-14: Type of Place of Residence ...............................................................56

LIST OF TABLES

Table 3.3-1: Child’s Socioemotional Development Model: Description of Variables .........39
Table 4.1-1: Age of Child in Months, Household Size and Number of Children in Household ........................................................................................................52
Table 4.2-1: Relationship between Households' SES and Child's SED .........................58
Table 4.2-2: Education of Household Head and Child’s Socioemotional Development ..........59
Table 4.2-3: Quality of Home Environment and Child Socioemotional Development ....60
Table 4.2-4: Social Interaction within Household and Child Socioemotional Development 61
Table 4.2-5: ECD Education Programme and Socioemotional Development ...............62
Table 4.2-6: Children’s Books and Socioemotional Development ................................62
Table 4.2-7: Child Left with Other Children ..............................................................63
Table 4.2-8: Sex of Child and Socioemotional Development ......................................64
Table 4.2-9: Correlation between Age of Child, Number of Children in Household and Household Size, and Socioemotional Development ................................................................. 65
Table 4.2-10: Sex of Household Head and Child's Socioemotional Development ........ 66
Table 4.2-11: Mother's Education and Child Socioemotional Development .............. 66
Table 4.2-12: Religion of Household Head and Child Socioemotional Development .... 67
Table 4.2-13: Region and Child Socioemotional Development .................................. 68
Table 4.2-14: Type of Place of Residence and Child's Socioemotional Development ... 70
Table 4.3-1: Estimation of Child Socioemotional Development Using SES of Households.. 72
Table 4.3-2: Estimation of SED of Children Using SES of Households and Mediating Variables.......................................................................................................................... 74
Table 4.3-3: Estimation of Socioemotional Development of Children Using a Variety of Predictors .................................................................................................................. 77
CHAPTER ONE

INTRODUCTION TO THE STUDY

1.0 Introduction

The early years are often considered the most critical stage of development in the lifetime of humans. The cognitive, socioemotional and physical domains of child development at this stage are essential to the extent that they have a lifetime influence on the wellbeing, mental health, literacy and numeracy competencies, criminality, physical outlook and economic contribution of the individual throughout life (Siddiqi, Irwin, & Hertzman, 2007). The importance of early childhood development (ECD) is grounded in the fact that whatever happens in the life of a child in the early years is crucial for their life course development. The central nervous system of the human being undergoes the most rapid development during the early years (Bradley & Corwyn, 2002; NSCDC, 2004; Walter & Wrester, 2009). The environmental conditions to which a child is exposed, provide the “nurturants” for the proper development of the cognitive, socioemotional (behavioural) and physical aspects of the individual (Siddiqi et al., 2007). These nurturants mainly include the quality of relationships (sociocultural), economic and environmental characteristics of the family and society in which the child is born. These characteristics play various roles in shaping the outcomes of the child. This is true irrespective of where a child is born, even though there are contextual influences on how these characteristics affect child development.

Studies (Berger, Paxson, & Waldfogel, 2010; Bradley & Corwyn, 2002; Williams, 2001) have shown evidence of poor cognitive, socioemotional and health development of children to be associated with families with less economic resources availability, than with wealthier families. If this association between child development outcomes and socio-economic status of their
households are causally related, such that poor child development outcomes are attributable to the low economic status of their households, then there are greater implications for the intergenerational transfer of poverty within households and families. Children from low SES families may be less likely to obtain higher education (Duncan & Brooks-Gunn, 2010; Opoku, 2014), have poor physical health (Blau, 1999; Chen, 2004; Moore, Redd, Burkhauser, Mbwana, & Collins, 2009; Siddiqi et al., 2007) and would have lower financial earnings in adulthood (Aughinbaugh & Gittleman, 2003; Berger et al., 2010; Okumu, Nakajjo, & Iseeke, 2008). They would also likely have low social interactions and social networks (Bradley & Corwyn, 2002; Yunus & Dahlan, 2013). These cohorts are likely to go on to raise their children in poorer environmental and socio-economic conditions, and the generational cycle of poverty and poor child development continues. Thus, it is important to understand the dynamics of child development and the influencing factors, in order to map out strategies for the proper upbringing of children in our society. The proper development of children in the early stages of life is crucial to their outcome in later life. To understand the impact of the environment and other factors on child development, this study focuses on the extent of influence of the socioeconomic statuses of Ghanaian households on child development with emphasis on the socioemotional development of children. The study makes use of the 2011 Multiple Indicator Cluster Survey (MICS 4) which provides data on the situation of children and women in Ghana in order to establish the relationship between SES of households and child development in Ghana.

1.1 The Concept of Child Development

Child development refers to the biological, psychological and emotional changes that occur in human beings between birth and the end of adolescence, as the individual progresses from dependency to increasing independence (Johnson, Christie, & Yawkey, 1987; UNICEF, 1989).
The development of the child is a continuous process that has a predictable sequence, but that which is unique for every child. Early childhood is considered as the most important and fastest period of development of the individual throughout the life course. The early years of life are very critical for ensuring the thorough and healthy cognitive, socioemotional and physical development of children (Cohen, Onunaku, Clothier, & Poppe, 2005; Duncan & Brooks-gunn, 2000; Walter & Wrester, 2009).

Early childhood development forms the foundation for a full and productive adult life of every individual and to the progress of every nation. For the child to have a healthy wellbeing in the future and ensure their economic participation, academic success, social citizenship, and good health during the course of their life, happenings and experiences in the early stages of childhood must be right (Bartolotta & Shulman, 2010; Siddiqi et al., 2007). Research has shown that half of a person's intelligence potential is developed by age four and that early childhood interventions can have a lasting effect on intellectual capacity, personality and social behaviour (Walter & Wrester, 2009).

There are three fundamental areas of development of the human being starting from childhood. These developmental areas are described as the domains of child development (Cohen et al., 2005) and they include the cognitive, socioemotional and physical/health development of the child.

Cognitive development of the child refers to the progressively continuous growth of the intellectual capabilities of the child (Siddiqi et al., 2007). Critical areas of the cognitive component of child development include the formation of perception, memory, imagination, conception, judgment, and reason (Bartolotta & Shulman, 2010). Nicolosi et al (1989) describe the cognitive domain as “the intellectual counterpart of one’s biological adaptation to the environment”. Quoting Owens (2008), Bartolotta & Shulman (2010) also refer to cognitive development as comprising of “the
mental activities of comprehending information and the processes of acquiring, organizing, remembering and using knowledge”. In all these processes, Piaget (1954) suggests that the child learns through the cognitive abilities by acting on the environment and with others.

The physical development of children refers to the development of the motor skills which involves the ability to engage in physical movement of the body (Bartolotta & Shulman, 2010). There are two main types of motor development; namely the gross motor and fine motor. The gross motor development denotes the physical skills that use large body movements, usually involving the movement of the whole body (Bartolotta & Shulman, 2010). Fine motor skills enable the child to engage in smaller, more precise movements of muscles in the more manipulative areas of the body such as the fingers and tongue. The fine motor skills enable children to be able to gain some level of independence in dressing and undressing themselves. Child health is an indicator of physical development of the child. As a result, the physical development domain is sometimes referred to as “physical/health development” and can be used interchangeably either simply as physical development or health development domain. Child health is largely dependent on the child’s nutritional status and the nutrition of the mother and while good health is directly linked with the physical development of the child, it is equally very important for the cognitive and emotional development of children (Siddiqi et al., 2007).

The important ingredient for proper development of the child lies in the environment in which children live, grow and learn (Bronfenbrenner, 1979; Siddiqi et al., 2007; UNICEF, 1989; Walter & Wrester, 2009). Several levels of environmental influence interplay to form the development of the child. These environments include the child’s immediate family, extended family, school environment, religious environment, the community, national and international entities. There
ought to be some nurturing qualities of the environments that help shape the growth process of the child (Berger et al., 2010; Siddiqi et al., 2007).

1.2 Socioemotional Development of Children

Socioemotional development is defined by Cohen et al. (2005) as the child's experience, expression, and management of emotions and the ability to establish positive and rewarding relationships with others. It comprises both intra- and interpersonal relational and emotional processes as the individual changes in the course of their life. Review of literature on this domain of child development found four subdomains namely; social competence, emotional competence, behaviour problems, and self-regulation (Halle & Darling-Churchill, 2016).

The subdomain of social competence is defined in early childhood literature as “the degree to which children are effective in their social interactions with others, including making and sustaining social connections, demonstrating cooperative skills and flexibility, and adjusting behaviour to meet the demands of different social contexts” (Halle & Darling-Churchill, 2016: 9).

Emotional competence as a subdomain of socioemotional development relates to the ability to understand the emotions of self and others, read emotional cues and react to others’ emotions, regulate one's own emotions, and understand the consequences of one's own emotional expressiveness (Denham, Zinsser, & Bailey, 2011; Halle & Darling-Churchill, 2016). Children’s behavioural functioning is not very easy to determine, as these have to be measured in a continuum. Halle & Darling-Churchill (2016) explain that behaviours that are “developmentally inappropriate or that impede a child's ability to adapt and function in their families, early care and education settings, or with a peer group are considered problematic” (p. 9). Literature finds these behavioural traits to include such internalizing behaviours as worries, anxieties, sadness or social withdrawal and externalizing behaviours such as roughness, hostility, disruptiveness,
noncompliance, and aggression (Denham et al., 2011; Halle & Darling-Churchill, 2016; Han & Kemple, 2006; Jones, Greenberg, & Crowley, 2015). The final subdomain of socioemotional development is the **self-regulation**, which has been defined to include the abilities to control impulses, delay gratification, resist temptation and peer pressure, reflect on one’s feelings, and monitor oneself (Han & Kemple, 2006). In other words, self-regulations involve the ability to manage one’s emotions and exhibit self-control skills.

Having discussed the various subdomains of socioemotional development, it is important to understand how empirical studies have dealt with this aspect of child development in the past and how they relate socioemotional development in the early years of life to the overall development throughout the course of human life.

The American Academy of Paediatrics (AAP) has asserted that socioemotional development is an essential component of a child’s total health and wellbeing, because it both reveals and impacts upon the developing brain’s wiring and function (AAP, 2005). This domain of child development, they argue, plays the most critical role within the first few years of life as it prepares the child to be self-confident, believing, empathic, intellectually inquisitive, capable of using language to communicate, and relating well with others (AAP, 2005). Cohen et al. (2005) corroborated this position by the AAP when they presented a strategic policy report to the American National Conference of State Legislatures (NCSL) in September 2005. In their report, the researchers upheld that acquiring socioemotional skills empowers children to learn from their teachers and caregivers, make friends with their peers, express their thoughts and feelings, and to cope with frustrations that may come their way (Cohen et al., 2005). These skills, others have argued, have direct influence on the cognitive learning of children including language skills, literacy and numeracy and the physical wellbeing as well.
The revealing importance of the socioemotional aspect of child development is explained by Green & Lee (2009). They observe this domain as being very important for a child’s successful development in adult life since healthy socioemotional development invariably forms the basis for children to develop early skills that they will require to help them succeed in adulthood (Denham et al., 2011; Halle & Darling-Churchill, 2016; Putnam-Franklin, Love, Theriault, & Fox, 2014). Skills such as learning how to pay attention, cooperate with others, and get along with others allow children to develop the confidence to explore and learn about the world in which they live and participate in many ventures including economic participation (Ewing Marion Kauffman Foundation, 2002). However, the socioemotional aspect of child development, like the other aspects, does not operate in isolation. They work together in tandem to ensure the complete healthy development of the child (Bartolotta & Shulman, 2010; Cohen et al., 2005; Green & Lee, 2009).

Goodman, Joshi, Nasim & Tyler (2015) reviewed literature on socioemotional skills in childhood and their long-term impact on adult life and found that many literature point to the important role childhood socioemotional development skills play on their adult self-perception, self-awareness and self-esteem. They also found social skills in the early years of life to be important primary predictors of “non-labour market outcomes, in particular, mental health and wellbeing, health behaviours, and partnerships in later life” (Goodman et al., 2015). In another recent study, Jones, Greenberg, & Crowley (2015) found that children who are better at resolving conflicts with peers in early years, understand emotions, and are helpful and cooperative with others, are more likely to become well-adjusted in later years. They found significant relationships between early childhood socioemotional functioning and outcomes in education, employment, criminality, substance abuse and mental health in later years, even after they controlled for some important variables pertaining to the child, family, and context.
1.3 Background of the Study

Child development has been widely researched in literature and researchers offer varying explanations on what influence the cognitive, socioemotional and physical development of children. While some of the measures are applicable everywhere, there are contextual factors which are influenced by sociocultural and environmental variables. Household income is widely thought to have significant association with child development in most studies (Berger et al., 2010; Blau, 1999; Williams, 2001). Yet the importance of household characteristics and social capital as well as the neighbourhood environment, in influencing the development outcomes of children cannot be undermined (Quansah, Ohene, Norman, Mireku, & Karikari, 2016).

To prepare children for school and provide them with a good foundation to life, the “A World Fit for Children” initiative by UNICEF among others, aims to “promote the physical, psychological, spiritual, social, emotional, cognitive and cultural development of children as a matter of national and global priorities” (UNICEF, 2002: 19). As a consequence, and in accordance with section 8 of The Children’s Act of 1998 (Act 560), the government of Ghana developed a comprehensive Early Childhood Care and Development (ECCD) policy in 2004 to provide a good start in life for all children (MICS Ghana, 2011). These policies, together with institutional specific policies and academic research outcomes help to shape the development of children in Ghana and the world at large.

Research on factors that influence child development have centred mainly on household income. A review of studies on the relationship between household SES and child wellbeing by Blau (1999) indicates that family income has considerable impacts on wellbeing, and the greatest of these effects is on a child's academic capabilities and accomplishments. A study by Aughinbaugh & Gittleman (2003) in the United States of America and United Kingdom found similar results, that
household income has a positive and significant effect on child development. They also found other family background variables as most important factors that affect child development.

Much of those studies were carried out in the developed countries. In sub-Saharan Africa, like in most parts of the developing world, there is paucity of literature that comprehensively discuss the issue of child development and the factors that influence same. Where it has been studied, there are no adequate data to address all aspects of the issue.

1.4 Statement of the Problem

The UNICEF led “A World Fit for Children” initiative provides a roadmap to creating a world in which all children get the best possible start in life and have access to a quality basic education. The initiative also seeks to promote the physical, psychological, spiritual, social, emotional, cognitive and cultural development of children as a matter of national and global priorities (UNICEF, 2002). Sickly children cannot grow up to become productive workforce of a country. In view of this, and in view of successive national governments’ policies to provide safe and supportive environment for the development of children, there have been research studies on the factors that influence child development. Aspects of child development have been studied and attributed to varying socio-economic and other factors within the household as well as societal levels.

Notwithstanding these initiatives by international institutions and national governments to create conducive environments for the development of children, there still remains a host of social issues such as criminality, mental disorders, personality disorders, health problems, physical underdevelopment or overdevelopment and many others, most of which trace their causes to happenings in the early years of life. For instance, the poor relationship and interaction of a child with parents and other children at younger age may result in personality disorders later in life. A
child born in an aggressive environment may end up showing and exhibiting signs of aggression later in life. Similarly, a child born to poor uneducated parents who cannot afford a balance diet or pay school fees may end up malnourished, stunted or deficient in literacy. The attendant problems associated with these mishaps are ominous for any society.

In Ghana, a couple of studies have dealt with child development and these studies have only dealt with the issue in part. Lartey, Khanam, & Takahashi (2016) studied the impact of household wealth on child survival in Ghana and found high household wealth to have significant effect on child survival. Other factors including parental education (Opoku, 2014), social class and rural-urban disparities (Quansah et al., 2016), type of household headship (Kyei, 2007; Opoku, 2014) have been applied variously to study aspects of child development, especially the cognitive and physical/health domains of child development in Ghana. The socioemotional aspects of child development have been largely overlooked. To the best of my knowledge, no study has been found to have considered the role of socioeconomic conditions of the household to the analysis of socioemotional (behavioural) development of children in Ghana. This rather very important component of child development has been found by research to correlate positively with healthy cognitive development, which creates a strong foundation for academic and socioemotional accomplishments in the future.

The importance of the socioemotional development of children lies in the fact that it promotes the communicative and relational skills of the child necessary for learning and integration throughout life (Mao & Gratch, 2005). Some institutions and non-governmental organisations in Ghana, having recognized the important role of this component of child development, have instituted early childhood learning and mentorship programmes to help families provide the needed support for children to develop in this area. Such organisations as PAMBE Ghana, Compassion International
Ghana (CIGH), First Intervention Ghana (FIG) and Child Rights International (CRI) Ghana have advocated for the implementation of the Child Protection Laws of Ghana to enable children get the best possible care that they need in early years. Despite these calls, there has not been much effort from the academia and research institutions to assess the effects of socioemotional needs of children and how they influence the overall development of the child.

Thus, this study seeks to fill that gap by examining the role played by a household’s socioeconomic characteristics on child’s socioemotional development in Ghana using data from the Multiple Indicator Cluster Survey (MICS) of 2011. Knowledge of the relationship between these variables will help create a nurturing environment for the development of children’s unique abilities and personalities in order to prepare them for a fulfilling adulthood life.

1.5 Significance of the Study

Children are the pillars of development of any society. Children help in the perpetuation of society and preservation of human culture. Due to the central role that children play in the sustenance of society, it is essential to study how children grow, learn and change during the course of their life. An understanding of early childhood development ramifications allows us to fully appreciate the cognitive, socioemotional and physical growth that children undergo from birth until they enter early adulthood. In other words, socioemotional development provides the foundation for a child’s experience, expression and management of both positive and negative emotions and relationship with other children and adults. Experiences in early life can either form a robust start to life or a friable one, and this can impact the ways in which children react and respond to the world around them for the rest of their lives (Cohen et al., 2005). It is important therefore, to understand the ways by which we can lay the right foundation for children in their early years so that they can become useful to society and themselves in their adulthood.
The importance of the socioemotional aspect of child development is succinctly explained by Green & Lee (2009). The researchers posited that the socioemotional domain of child development provides the foundation for children’s successful development later in life. Others have also emphasised this point; noting that healthy socioemotional development forms the basis for children to develop early social, behavioural and emotional management skills which they will require in many aspects of their lives to help them succeed in adulthood (Denham et al., 2011; Halle & Darling-Churchill, 2016; Putnam-Franklin et al., 2014). Skills such as learning how to pay attention, listen to people, cooperate with others, and get along with others allow children to develop the confidence to explore and learn about the world in which they live and participate in many ventures in their later life including education, social and/or economic participation (Ewing Marion Kauffman Foundation, 2002). For this reason, it is important to take special interest in the formation process of children in order to guide them through their social and behavioural development process.

In the present time, data on children and their developmental processes are largely unavailable or inadequate in our country in particular and the sub-Saharan African region in general. This study is timely and significant at such a time, for the important reason that the findings herein will add to the body of knowledge that attempt to explain the socioemotional aspect of child development in our context. The study will also provide insight into the specific influencing factors of socioemotional development of children. This would guide Early Childhood Development practitioners, policymakers and parents on the essential focus areas in dealing with children in their formation years.

In the year 2015, a team of researchers conducted a review of literature on the socioemotional skills development in childhood and their long-term impact on adult life. In their findings, many
literatures point to the important role that childhood socioemotional development skills play on their adult life particularly in the areas of self-perception, self-awareness and self-esteem. They also found that social skills in the early years of life were important primary predictors of non-labour market outcomes, including mental health and wellbeing, good health behaviours, and relationships in later life (Goodman et al., 2015). Considering the importance of proper socioemotional upbringing in childhood for a useful adult life, it can be inferred that the many social problems that we face today in our society have their foundation causes in the quality of development of children in their early years. The spate of criminality in our society, incidences and prevalence of various social vices in our society such as armed robbery, spontaneous public attacks on individuals on the streets (mob attacks) as well as bribery and corruptions in public and private services can be said to trace their causes to the early years of individuals and the level of socioemotional development that individuals underwent in childhood. Other vices including domestic violence, abuses in relationships, substance abuse, psychological problems such as depressions and personality defects, and psychiatric problems may also trace their causes to inadequate early childhood upbringing. With this in mind, it is important to carefully understand the ramifications of socioemotional development of our children in order to properly guide them through their formation years.

In another recent study, Jones, Greenberg, & Crowley (2015) found that children who are better at resolving conflicts with peers, understand emotions, and are helpful and cooperative with others are more likely to become well-adjusted adults who have jobs and contribute positively to society. They found significant relationships between early childhood socioemotional functioning and outcomes in education, employment, criminality, substance abuse and mental health in later years, even after they controlled for some important variables pertaining to the child, family, and context.
Again, an appreciation of the contributing factors that influence the socioemotional development of children in Ghana will help families, policymakers and national government to model society in a way as to enable a nurturing environment for proper child development. This study will help to examine the factors that play important roles in the development of children and offer policy alternatives, if necessary, to the child centered policies in the country.

Lastly, as an academic research, findings from the study will add to the already existing body of knowledge on the socioemotional development of children and the factors that interplay within the household environment to ensure acceptable upbringing of children.

1.6 Research Questions

The questions that this study seeks to answer include:

1) What is the relationship between economic status of households and the socioemotional development of children in Ghana?

2) What is the association between the quality of home environment and child’s socioemotional development?

3) Do social relations within the household influence the socioemotional outcomes of children?

1.7 Research Objectives

The objectives of the study are classified as general and specific.

1.7.1 General objective

The main objective of the study is to examine the relationships between socioeconomic statuses of households and the socioemotional development outcomes of children in the context of Ghana in order to inform policy directions and contribute to knowledge.
1.7.2 Specific Objectives

The specific objectives of the study include the following:

1) To examine the relationship between households’ economic status and child socioemotional development.

2) To investigate the association between the quality of home environment and child socioemotional development in Ghana.

3) To determine the influence of social interactions within the household on the socioemotional development of children.

1.8 Research Hypotheses

The following propositions are made on the relationships between the predictor variables and the dependent variable. Three hypotheses are presented here including:

**Hypothesis One:** Children from economically wealthier households are more likely to be socioemotionally on track.

**Hypothesis Two:** Children who play with homemade/shop toys are more likely to be socioemotionally on track compared to children who play with household objects.

**Hypothesis Three:** Children whose household members engage them in three or more social activities are more likely to be socioemotionally on track compared to those who are not engaged in social activities.

1.9 Outline of the Dissertation

This research work has been organized into six chapters. Chapter one introduces the study by espousing the need to examine the relationship between SES of Ghanaian households and the socioemotional development of children. The research problem is stated in chapter one and the
significance of the study outlined. Three objectives have been identified for the study and hypotheses formulated to guide the research process.

Chapter two presents a review of the literature on child development at the global, continental and country levels. Literature review, as the theme of this chapter, acknowledges past studies in the area of child development and their findings therein. The ecological systems theory of child development is the motivating theory behind this study and that has been extensively discussed in this chapter. The chapter further explains the conceptual framework applied to the study of SES and child socioemotional development in Ghana.

Chapter three, which describes the methodological processes used in carrying out the study, is the next chapter. The main techniques used in analysing the data are discussed here. The independent, intermediate, control and dependent variables are described in chapter three, laying out how they are measured in the study. Chapter four provides a presentation of the study results in descriptive statistics, chi-square and regression analysis. Chapter five discusses the findings and relate them to existing literature. Lastly, chapter six provides a summary of the main findings obtained in chapter four and reviews the empirical chapters, namely; chapters one to three. The chapter also makes recommendations for policy in the area of child development in Ghana. It concludes by providing directions for future research.
CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This section reviews and discusses the empirical studies that are relevant to the concept of child development. Numerous studies have been conducted at the global, continental, regional and country levels on the influence of socioeconomic status on the socioemotional development of children. This chapter examines these studies, highlighting their findings that are related to the focus of the present study. The chapter also examines the effects of the variables that are seen to have influence on socioemotional development of children. Further, the ecological systems theory is discussed as the theoretical perspective that motivates the present study and a conceptual framework is derived from the theory therein to suit this study.

2.1 Factors that Influence Child Development

Early childhood development (ECD) has been researched extensively in literature because of its intrinsic value to the overall progress of the human being. For children to grow into productive and useful adults, the growth process during their formation years must be right. Child development has been defined by Johnson et al. (1987) as a “dynamic process through which children progress from dependency on caregivers in all areas of functioning during infancy, towards growing independence in the later childhood (primary school age), adolescence and adulthood periods” (p. 11). These processes include the biological, psychological and emotional changes that occur in children as they develop gradually into adulthood (UNICEF, 1989). This progress is a seamless continuous process with a predictable sequence, but it is unique to every child. The early years of human life are considered as the most important period of development.
in the whole of the life course. It is also the most rapid developmental period of human beings (Cohen et al., 2005; Duncan & Brooks-gunn, 2000).

Healthy and well-resourced childhood development is important for a full and productive adult life and by extension, to the progress of every nation. For the child to have a healthy wellbeing in the future and ensure their economic participation, academic success, social citizenship, and good health during the course of their life, happenings and experiences in the early stages of childhood must be right (Bartolotta & Shulman, 2010; Siddiqi et al., 2007). Research has shown that half of a person's intelligence potential is developed by age four and that early childhood interventions can have a lasting effect on intellectual capacity, personality, and social behaviour (Walter & Wrester, 2009).

Child development, as established in literature, is multidimensional in character and conventionally divided into distinct domains or pathways: physical/health, cognitive and socioemotional (Boyden & Dercon, 2012) and these domains have been discussed extensively in chapter one. The interest here is the influence that each of them has on the others. They are so interrelated with each other so much that defects in one domain will have compounding adverse effects on the others. Researchers have established convincing linkages between early childhood nutrition and cognitive outcomes, physical/health development and socioemotional outcomes in later life, as well as child cognitive development and socioemotional outcomes such as self-efficacy and self-esteem (Bartolotta & Shulman, 2010; Boyden & Dercon, 2012; Siddiqi et al., 2007).

2.1.1 Household SES and Child Development

Households’ socioeconomic statuses (SES) have been widely researched in literature because of its central role in a range of things that happen in our lives including access to health, access to
material resources, emotional stability, social networks, education and many others. Duncan & Brooks-Gunn (2000), (2010) and McLoyd (1998) have observed that the interest of researchers on SES stems from the conviction that families with higher SES are able to provide their children with a variety of services, material things and social networks that inure to the benefit of the children in later life. They also observed that children from lower SES families lack access to those same resources and experiences, which put them at a developmental disadvantage. This observation has been supported by research which have shown SES to have significant association with the health, cognitive, and socioemotional development of children and its effects on the child starts prior to birth and continuous into adulthood (Bradley & Corwyn, 2002).

The centrality of SES of households to the development outcomes of children is also observed by Jednoróg et al. (2012). In a 2012 study of 10-year old children from various SES background in France, they confirmed that behavioural and language skills which form part of the cognitive domain of child development, were most affected by parental SES. SES influences child development to the extent that the structure of the brain is even associated with the level of SES of the family (Jednoróg et al., 2012). There is significant indication that children from low SES households very often manifest some signs of psychiatric disorders and maladaptive social behaviours compared to children from wealthier households (Bradley & Corwyn, 2002).

A number of studies including: Aughinbaugh & Gittleman (2003), Berger et al. (2010), Bradley & Corwyn (2002), Deckers et al. (2015), Duncan & Brooks-Gunn (2010), Lartey et al. (2016), Letourneau et al. (2013), McLoyd (1998), Quansah et al. (2016), Williams (2001) among a host of others have found compelling relationships between household income or SES and various domains of child development.
Beyond the personal characteristics of the child, research has also found some significant association between SES and the level and quality of social interrelationships within the family (Conger et al., 2010). This has also been found to influence the socioemotional development outcomes of children as observed in several studies (AAP, 2005; Bartolotta & Shulman, 2010; Cohen et al., 2005; Goodman et al., 2015; Green & Lee, 2009; Jones et al., 2015). Conger et al. (2010) however noted that this relationship is more complex than previously assumed; since socioeconomic status can only be measured as a continuum rather than merely poor or rich categorization. They conclude that certain theoretical and methodological issues need to be addressed in order to properly assess the extent of influence that SES has on social relations.

In terms of psychological and emotional development, there is increasing evidence that links lower SES and negative psychological health outcomes in individuals of all ages. Such psychological vices as suicide, substance abuse, cigarette smoking, drunkenness, etc. and more positive outcomes such as optimism, self-esteem, and perceived self-control have been associated with higher levels of SES especially among younger children (Newacheck, Hung, Park, Brindis, & Irwin, 2003). Other studies (Flint & Kendler, 2014; Markowitz & Weissman, 2004; Spencer, Thanh, & Louise, 2013) have also found extreme forms of emotional and behavioural disorders such as anxiety, depression, attention-deficit, hyperactivity disorder, conduct disorders, among others to be associated with members of families of low SES. Similarly, low family SES has been found to have significant association with higher levels of aggression (Molnar, Wells, & Mcdowell, 2008), child hostility, perceived threats, and reported disassociation of children with adults (Chen & Paterson, 2006).

Aggression and social exclusion are some of the parameters used in determining the levels of socioemotional development of children and this is also linked to the extent of the social
interrelationships within the child’s proximal and external environments. In a study to examine the association of income and behavioural development of pre-school children, Berger et al. (2010) observed that lower-income 3-year-old children were more likely to be aggressive, withdrawn, and with anxious behaviour problems than children from affluent families.

2.1.2 Home Environment, Social Relations and Child’s Socioemotional Development

SES of households does not influence child’s socioemotional development in isolation. Many research findings (Berger et al., 2010; Dearing, Kreider, Simpkins, & Weiss, 2006; Duncan & Brooks-Gunn, 2010; Letourneau et al., 2013; Yunus & Dahlan, 2013) have linked home environment and social relationship within the child’s immediate environment as mediating between households’ SES and child development. Hoerner (2001) is quoted for example in Letourneau et al. (2013) for his observation that the quality of the home environment with regards to parent–child relationship among Hispanic families in the USA was a strong mediating factor in the relationship between households’ SES and language and cognitive scores of Hispanic preschool children. Duncan & Brooks-Gunn (2010) have stated quite convincingly that “home environment account for a substantial portion of the effects of family income on cognitive outcomes in young children” (p. 64). They measured home environment as the availability of household resources, such as reading materials and toys, and parental practices, such as disciplinary methods and time with children. The researchers also suggested that the level of parent-child social interaction may have some significant effects on the child’s outcomes. These observations have been supported by Dearing et al. (2006) and Yunus & Dahlan (2013).

Perhaps one of the most influential historical publications that adequately addressed the effects of social interaction within the household on early childhood development is one by Johnson et al. (1987). They postulated that “stimulating home environments and relationships [within
households] are vital for nurturing the growth, learning and development of children” (p. 14). They stated that families play a crucial role in the development of their children in any aspect and a close child-caregiver bond is important for children to develop social skills and be able to interact well with their peers and adults (Johnson et al., 1987).

Bradley & Corwyn (2002) studied socioeconomic status and child development in the United States and observed that certain aspects of the home environment such as learning stimulation and maternal responsiveness contributed positively to children’s cognitive abilities and emotional stability. In their study on income and child development, Berger et al. (2010) exhaustively discussed various aspects of the home environment and how they affect child’s outcomes. While confirming that the home environment and social interactions act as mediators between income and child development, they found that lower income households are associated with low quality home environment, less parental engagement with children and low socioemotional outcomes. Conversely, high-income households were found to be related with high quality home environments, parental social engagement with children and high socioemotional outcomes. Particularly, they found that children whose parents engaged them in social activities and who had learning stimulants and other playing materials at home, exhibited strong social relations with their peers and adults as well as stable and quietly excited emotional outlook. This finding has also been supported by Yunus & Dahlan (2013) who observed that parenting practices and quality of the home environment bear great significance in the development of children. They therefore recommend that children be surrounded with mentally and physically healthy adult family members who are constant, reliable and can provide them with love, support and encouragement.
2.1.3 Mother’s Educational Level and Child’s Socioemotional Development

One of the important independent variables being controlled for in this study is the educational level of mother and how that affects child’s socioemotional development. In this section, we discuss what extant literatures say about mother’s education and child development. In some literature this variable is used as part of a household’s SES together with wealth status, occupation and marital status (Letourneau et al., 2013). This study isolates mother’s education from SES and includes education of household head as part of the SES of households (Blau, 1999). Bradley & Corwyn (2002) report that “numerous studies have documented that poverty and low parental education are associated with lower levels of school achievement and IQ later in childhood” (p. 375). They also observed parental education to have significant relationship with children’s behavioural competence later in life. Low parental education has been found to have significant influence on social withdrawal, depression, aggression and criminality later in life (Bradley & Corwyn, 2002; Williams, 2001).

More generally, Dearing et al. (2006) observed that low parental education puts children at extremely higher risk of academic failure and poor social outcomes in the future. This observation was also made here in Ghana by Azigwe, Kanyomse, Awuni, & Adda (2016) who reported that parents with higher education are better able to raise their children to have healthy self-perceptions about their academic abilities, and engagement in intellectual activities. The Ghanaian researchers also observed that parents with higher educational backgrounds generally have children with fewer behavioural problems that could impede their learning experiences. This finding implicitly implies that children whose parents have higher education are likely to development healthy socioemotional outcomes.
Maternal education has been found by many researchers (Aughinbaugh & Gittleman, 2003; McLoyd, 1998; Okumu et al., 2008; Quansah et al., 2016) to have positive significant relationship with some aspects of child development. For example, Quansah et al. (2016), in a study of social factors that influence child health in Ghana, made the observation that education of mother has strong impact on the child’s physical/health wellbeing. They noted particularly that mothers with higher education are likely to identify behavioural changes in their children and seek health or some other remedy for them, compared to less educated mothers.

2.1.4 Other Sociodemographic Characteristics and Child’s Socioemotional Development

Under this section, we discuss what others have said about the influence of variables such as region of residence, place of residence, household size, religion of household head, sex of household head, number of children in the household, age and sex of the child on the socioemotional development of the child.

Bradley & Corwyn (2002) for instance have quoted Osofsky (1999) as arguing that children who grow up in poor urban neighbourhoods are most often exposed to dangerous weapons and substances such as guns, knives, drugs, and acts of sporadic violence in the context of the USA. As a result of this exposure, Bradley and Corwyn argue that many children manifest posttraumatic stress disorder symptoms. Another research finding explained that such exposure to violence disturbs a child’s capacity to think independently and solve problems (Garbarino, 1999). Duncan & Brooks-Gunn (2010) also make reference to children in urban poor neighbourhoods having difficulties in their socioemotional development process compared to children in upmarket residential areas in urban centres and those from rural areas.

Some researchers (Bornstein et al., 2012; Bradley & Corwyn, 2002; Duncan & Brooks-Gunn, 2010; McLoyd, 1998; Evans et al., 1999) have argued that household size affects the state of
socioemotional wellbeing of children. Evans et al. (1999) for example, have linked household crowding to the cognitive and emotional functioning of children. Their position has been supported by findings presented by Bradley & Corwyn (2002) which sought to suggest that larger households provided some social resources to children and they easily develop their social skills. However, poor households that are often located in deprived neighbourhoods tend to have limited space for children to play and the overcrowding could result in some externalizing behavioural problems such as aggression, violence and criminality and internalizing problems such as depression and mental problems later in life. The impact of household size becomes even greater when a number of negative life events such as family dissolution and loss of employment, and risk conditions such as household crowding and presence of a mentally ill parent increases (Brooks-Gunn et al. 1995; Bradley & Corwyn, 2002; Duncan & Brooks-gun, 2000; Duncan & Brooks-Gunn, 2010).

There is paucity of literature on the effects of religion and sex of household head on socioemotional development of children. However, the few available literature point to the fact that children whose parents belong to one form of religion or the other are most likely to have good social relations because they involve their children in the religious community activities (Beatty, Kamarck, Matthews, & Shiffman, 2011). Kyei (2007) has observed that female-headed households have more child-focused resources, which enable them to invest in child education even when their income levels are low, compared to male-headed households. Availability of child-oriented resources serve as learning stimulus which increases children’s ability to explore their environment and develop positive social and emotional outcomes.

The number of children in a household influence the overall development of the child in similar ways as the total household size; but specifically can have both positive and negative effects on the child’s socioemotional development. Moore et al. (2009) for instance, have observed that in
the US, in poor households where there are many children, parents are less able to provide the necessary child development aids for them and the children’s cognitive, health and socioemotional outcomes are compromised as a result. It has also been found that children who live with only one parent are likely to have low social and emotional support especially when the number of children in the household increases (McLoyd, 1998). In their study of income and child development, Berger et al. (2010) also controlled for number of children in household, and the age and sex of the child. Other authors such as Beatty et al. (2011), Hong (2007), Newacheck et al. (2003) and Spencer et al. (2013) have controlled for age and sex of child and number of children in household in various studies of child development.

In the next section of this chapter, the ecological systems theory of child development is adopted for the study. The section explains the various levels of child development as propounded by Urie Bronfenbrenner in 1979.

2.2 Theoretical Perspective

Child development theories have been developed by various theorists to explain the changes and growth processes of children that take place during the course of childhood. Such theories emphasis the various components of child development including socioemotional and cognitive growth. They have also sought to explain the factors that influence such development, including external experiential environmental interactions that shape the outcome of children. These theories help us to understand the growth, behavioural and thought process of children.

The theoretical basis of the present study is motivated by the ecological systems theory of child development that was developed by Urie Bronfenbrenner (1917-2005) in 1979. Bronfenbrenner (1979) developed the ecological systems theory to explain how biological makeup of the child and the child’s proximal environment affect how he or she grows and develops. He identified different
levels of nested systems that interplay to impact a child's development and these levels he termed the microsystem, the mesosystem, the exosystem, and the macrosystem. In later years, he included a fifth system called the chronosystem, which he explained as the patterns of environmental events and transitions over the course of life. In other words, the chronosystem is the time travelled between the other levels. Being the theoretical foundation of this study, I attempt to explain the ecological systems theory in the following paragraphs and relate it with the various components to the present study in order to establish the linkage between theory and practice.

The **microsystem** is the immediate environment that the child relates and interacts with, such as their immediate family or caregivers and their school or day-care. Bronfenbrenner postulates that how the immediate environment interacts with the child will play a key role on how the child grows. The child is able to grow and develop better if the relationships at the microsystem level are encouraging and nurturing. On the other hand, the child’s actions and/or reactions to the people and places at the microsystem will determine how they treat him/her in return (Paquette & Ryan, 2001). It is important to note that the functional characteristics of this proximal environment including the relational disposition of the household have effect on the child’s development.

The next layer of the ecological systems perspective is the **mesosystem**. This layer describes how the different parts of a child's microsystem work together for the sake of the child. Berk (200), quoted in Paquette & Ryan (2001), noted that this level of influence provides the connection between the structures of the child’s microsystem. He explains that if a child's caregivers play active role in the child's school, such as attending parents-teachers’ association meetings and watching the child play, it will build the child’s confidence and help to ensure the child's overall growth.
The **exosystem** level describes the larger social system in which the child does not relate and interact directly but which nonetheless influence their development outcome. The people and places identified in this level include extended family members, parents' workplaces, the neighbourhood environment, religion, etc. The people and places at this level have both negative and positive effects on the child’s development (Bronfenbrenner, 1994; Paquette & Ryan, 2001). At this level, the occupational and educational characteristics as well as the SES of the household affect the child’s development.

*Figure 2.2-1: Bronfenbrenner's Ecological Systems Theory of Child Development*

Source: Paquette & Ryan (2001) adaptation of Bronfenbrenner’s (1979) model
The last layer of this perspective is termed as the macrosystem. The **macrosystem** is the largest and most remote set of people and institutions around the child which do not play any direct role on the child but which still have greater influences over the child. The components of the macrosystem may include the national government, politico-social institutions, cultural values and norms, the economy, wars, etc. Bronfenbrenner explains that these systems can also affect a child either positively or negatively even though they do not interact directly with the child. Based on this ecological systems theory, a conceptual framework for the study is presented in the next section.

### 2.3 Conceptual Framework

This section discusses the framework that is used to explain the interrelationship between child development and the factors that affect it. A conceptual framework, as defined by Miles & Huberman (1994), is a visual or written product that explains, either graphically or in narrative form, the main things to be studied—the key factors, concepts, or variables—and the presumed relationships among them. In the present study, the framework is motivated by the ecological systems theory of Bronfenbrenner (1979) and describes the variables and their interrelationships with each other that help to shape the socioemotional development of children.

The framework demonstrates the relationship between the independent variable, which is the socioeconomic status of households, as measured by the wealth quintile of households and educational status of the household head, and the dependent variable (socioemotional child development). The household socioeconomic status is seen to have an influence, through the social relations within the household and the home environment, on the socioemotional development of children. However, there are several other factors that could potentially influence the development of children, but which are not the subject of interest in the present study. As a result, these variables
have been controlled for. They include region of residence, place of residence (rural/urban), household size, mother’s educational level, sex and age of the child, sex of the household head, Early Childhood Development (ECD), amount of time that child is left with other children and the number of children in the household. Below is the conceptual framework for the study.

**Figure 2.3-1: Conceptual Framework for SES and Child Development in Ghana**

Source: Adapted from Paquette & Ryan (2001) and modified

A complete description of these variables is presented in the next chapter under the heading ‘definition of variables’. Under the same section is a description of how each of the variables is measured. The figure above is the graphical presentation of the relationships between the variables.
CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter discusses the methodology employed in the study. The source of data used for the study, data composition and definition of variables are also discussed in this chapter. Finally, the data analysis techniques employed in the next chapter for analysing the data are discussed in this chapter.

3.1 Data

The study makes use of secondary data taken from the Multiple Indicator Cluster Survey (MICS) of 2011. The MICS is an internationally comparable household survey programme developed by UNICEF in the mid 1990's to assist developing countries, where there is limited data, to fill such data gaps for monitoring the situation of children and women (MICS Ghana, 2011). The MICS provides a reliable source of information about important socio-demographic indicators on children, women, men and households in Ghana (http://www.statsghana.gov.gh).

3.2 Sample Design and Sample Size

The MICS 2011 report describes the sample design as below:

“The sample for the Ghana Multiple Indicator Cluster Survey (MICS) was designed to provide estimates for a large number of indicators on the situation of children and women at the national level, for urban and rural areas, and for 10 regions: Western, Central, Greater Accra, Volta, Ashanti, Brong Ahafo, Northern, Eastern, Upper East and Upper West regions. The urban and rural areas within each region were identified as the main sampling strata and the sample was selected in two stages. Within each stratum, a specified number of census
enumeration areas were selected systematically with probability proportional to size. Since
the sampling frame (the 2010 Ghana Population and Housing Census) was up-to-date, a new
listing of households was not conducted in all the sample enumeration areas prior to a
systematic sample selection of 15 households in each selected cluster. The sample was
stratified by region, urban and rural areas, and is not self-weighting since Central, Northern,
Upper East and Upper West regions were over-sampled. For reporting national level results,
sample weights are used” (MICS Ghana, 2011: 5).

The MICS sampled 12,150 households nationwide for the survey in 2011 but found out that 11,970
of them were actually inhabited. Out of this number, 11,925 households were successfully
interviewed representing a response rate of close to 100 percent. A total of 7,626 children aged
five and below were listed in the household survey questionnaire. Of this list, questionnaires were
completed for 7,550 of these children (MICS Ghana, 2011), representing a response rate of about
99 percent within the households that were interviewed.

It must be noted that not all of the households provided answers for certain questions in the survey,
especially those relating to children. The sample of households with child(ren) under five was
7,550. The questions relating to the socioemotional child development which, in the MICS
questionnaire comprised questions EC15, EC16 and EC17, were specific to only children between
ages 3 and 5 years. As a result, and since socioemotional child development is the focus of this
study, the data is further scaled down to those households for which there were answers on child
socioemotional development indicators. Thus, the final total sample of households included in this
study under this criterion is 3080, representing 25.8 percent of the total households and 41 percent
of households with children under five years of age interviewed in the MICS 2011 survey.
3.3 Definition of Variables

Research variables refer to the measurable characteristics in a study. The variables here are classified into dependent, independent, intermediate and control variables. In this section, these variables are described and shown how they are measured in the study in order to arrive at the conclusion. As an important component of child development, as found by research, this study employs the SES of households in Ghana to examine the role it plays in the socioemotional development of children. The types of variables are described below with a detail explanation of how they are measured.

3.3.1 Dependent Variable

The variable of interest here is the socioemotional development of children. The study aims at examining the relationship between households’ socioeconomic status and child’s socioemotional development in Ghana. The American Academy of Paediatrics (AAP) defines a healthy socioemotional development as “a child’s emerging ability to: 1) Experience, manage, and express the full range of positive and negative emotions; 2) Develop close, satisfying relationships with other children and adults; and 3) Actively explore their environment and learn” (AAP, 2005). In this study, we measure the quality of socioemotional development of children by using three main straightforward questions specifically asked in the MICS survey to address this domain of child development. These questions are interrelated without a clear-cut distinction among them. They all refer to the socioemotional aspects of the child.

The questions posed to respondents in the 2011 MICS survey on this subject were:

1) EC15: Does [child] get along well with other children? (child’s social relations with others).
2) EC16: Does [child] kick, bite or hit other children or adults? (signs of aggression of the child).


These are the three areas of focus in assessing the socioemotional status of children. For purposes of this study and in accordance with the classification in the MICS report, a child is considered socioemotionally balanced or said to be on track on the socioemotional development trajectory, when answers to any two of the three questions are positive. This classification is necessary because of the earlier indication that the three questions are interrelated and cannot be clearly distinguished as social or emotional.

It should be noted that a “yes” answer to questions 2 and 3 as they appear in the MICS survey questionnaire means negative; whereas a “yes” answer to question one means positive. As a result, the data is recoded to enable the researcher have a uniform positive answers to all the three questions. Thus, questions two and three are recoded as: 2) Child does not kick, bite or hit other children or adults (a “yes” to this question is invariably the same as a “no” to the second question asked in the MICS survey); 3) Child does not get distracted easily (a “yes” here also replaces a “no” in the third question of the MICS survey). The first question remains unchanged.

Having recoded the three questions thus, they are then computed as a composite nominal variable called socioemotional development (SED) of child. It is measured as; 0 = child is socioemotionally not on track and 1 = child is socioemotionally on track. A “yes” answer to any two of the questions means the child is socioemotionally on track and is coded as 1. A “yes” answer to only one or none of the three questions means the child is socioemotionally deficient and thus not on track and that is coded as 0.
3.3.2 Independent Variable

The independent variable is the socioeconomic status (SES) of households. For the purpose of this study and in accordance with some literature (Blau, 1999; Siddiqi et al., 2007), the educational status of the household head and the household wealth quintile are used as proxy for the socioeconomic status. The wealth quintile categorizes wealth status of households into five different groups namely; “poorest”, “poor”, “middle”, “rich” and “richest”. This categorization is arrived at by assessing many household economic variables and building a wealth index score which results from the answers to questions provided in the MICS survey questionnaire. The educational status of the household head is the categories of “no education”, “primary”, “middle/JHS” and “senior high school or higher”. The aim of this study is to examine how the socioeconomic status of households influences the socioemotional development of children in Ghana.

The role of household socioeconomic status (and/or household income) on the development of children has been researched widely by many. However, research is limited in Ghana on how SES of households relates with and influences the socioemotional development of children and that is why this study seeks to examine the influence of SES on the SED of children in Ghana.

3.3.3 Intermediate Variables

The mediating variables in this study include social interaction within the household and the quality of home environment.

3.3.3.1 Social Interaction within the Household

To answer the question on how social interaction or engaging the child in social activities within the household affect the socioemotional development of children, the study measures the level of social interaction within the household as the level at which household members and caregivers
engage in social activities with the child. Such activities as parents and/or caregivers playing with children, singing, telling stories, reading for or with children and engaging in outdoor activities with children (Blau, 1999; Green & Lee, 2009) are answered in the MICS 2011 questionnaire. Research has shown that household members involvement in such activities with the child boosts their socioemotional development (AAP, 2005). For instance, children of parents who go to watch them play a soccer game with their peers or attend a parents-teachers’ association meetings at school tend to have self confidence in themselves and relate well with other children and adults easily (Cohen et al., 2005). The MICS questionnaire provides six questions in the MICS 2011 survey to address the issue of social interaction/activities using a number of social activities which parents and/or caregivers engage the child in. The activities listed in the MICS survey questionnaire relevant to social interaction with the child include: 1) no activities with child, 2) reading books with/for child, 3) singing songs with/for child, 4) taking child out for outdoor activities and 5) playing with child. It should be noted that these activities are not mutually exclusive since a child can engage in two or more of these activities. As a result, the study looks at how many activities a child is engaged in and how that influence their socioemotional development. These activities are termed here as the indicators of social interaction or relationship with the child within the household and they are listed above as five (5) indicators of social interaction.

For purposes of the present study, we look at the number of activities that household members engage the child in and how they affect the child’s socioemotional development and that constitute the quality of social interaction/activities within the household. Since no single one of these indicators can provide a sufficient information on the status of social interaction with the child within the household, the five indicators above are combined as a composite variable. The
composite variable now called social interaction within the household is then coded as follows: 0 = No activities with child, 1 = Engage child in only one activity, 2 = Engage child in two activities, and 3 = Engage child in three or more activities. In the regression model, “no activities with child” is the reference category.

3.3.3.2 Quality of Home Environment

The home environment refers to the immediate environment in which the child lives and the characteristics therein. Green & Lee (2009) define a good quality home environment as a high quality non-parental child care environment which enables the child to have sufficient learning aids. The good home environment may include “having sufficient financial resources, not being exposed to domestic violence and drug and alcohol abuse, and living with parents in a low-conflict marriage” (Green & Lee, 2009).

For purposes of this study, a good quality home environment includes the availability of physical playing aids at the disposal of the child at home. These playing aids include playing toys (both shop and homemade toys) and household objects.

The composition of the home environment is varied and various researchers have included several items to this variable depending on the availability of data. The most common items included as home environment indicators include parental characteristics (marital status, domestic violence, mental condition) (Aughinbaugh & Gittleman, 2003; Bornstein et al., 2012b; Yunus & Dahlan, 2013) and neighbourhood conditions (Azigwe et al., 2016; Bradley & Corwyn, 2002; Duncan & Brooks-gunn, 2000). These have been included in the quality of home environment in many literatures as indicated above. Some of these indicators of quality home environment are excluded in this study because of data limitation. The data is limited here because these questions were not asked in the MICS survey questionnaire.
For the purpose of this study, the indicators of quality of home environment include: 1) child does not play with any playing things, 2) household objects, 3) homemade toys, and 4) shop or manufactured toys. Household objects are defined as any objects within the vicinity of the household with which a child plays. These may include sticks, stones, mud objects, milk tins, tree leaves and branches and so on. Homemade toys are toys made in the home including rag-made teddy bears, rag-made balls, and clay-made toys. Shop or manufactured toys are those toys made in the factory with either metallic or plastic materials and sold in convenience stores.

As in the social interaction variable, the home environment variable is not mutually exclusive and thus cannot be classified categorically based on the indicators. For this reason, a composite variable is arrived at with a combination of the various indicators and the variable is recoded as follows: 0 = child does not play with any playing thing, 1 = child plays with household objects only, 2 = child plays with homemade/shop toys only, and 3 = child plays with both household objects and homemade/shop toys.

The table on the next page shows the variables and a brief description of how they are measured in this study.
### Table 3.3-1: Child’s Socioemotional Development Model: Description of Variables

<table>
<thead>
<tr>
<th>Variable Type</th>
<th>Variable</th>
<th>Description (how variables are measured)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Independent Variables</strong></td>
<td>Household economic Status</td>
<td>Household wealth quintile and education of household head as proxy for household SES</td>
</tr>
<tr>
<td></td>
<td>Education of household head</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social interactions</td>
<td>Household members engage in social activities with child including: telling stories, playing, singing, reading, outing) combined as a composite variable as follows: 0 = No activity at all 1 = Engage in one activity with child 2 = Engage in two activities with child 3 = Engage in three or more activities with child</td>
</tr>
<tr>
<td></td>
<td>Quality of home environment</td>
<td>Availability of playing objects (homemade/shop toys, household objects) combined as a composite variable. 0 = No playing things 1 = Play with household objects only 2 = Play with homemade/shop toys only 3 = Play with household objects &amp; homemade/shop toys</td>
</tr>
<tr>
<td><strong>Intermediate Variables</strong></td>
<td>Region of residence of child</td>
<td>Regions of Ghana</td>
</tr>
<tr>
<td></td>
<td>Early childhood development</td>
<td>Whether or not child attends early childhood education</td>
</tr>
<tr>
<td></td>
<td>Place of residence</td>
<td>Rural versus urban</td>
</tr>
<tr>
<td><strong>Control Variables</strong></td>
<td>Household size</td>
<td>Number of household members</td>
</tr>
<tr>
<td></td>
<td>Religion</td>
<td>Religious affiliation of household head</td>
</tr>
<tr>
<td></td>
<td>Mother’s education</td>
<td>Level of education of mother of child</td>
</tr>
<tr>
<td></td>
<td>Age of child</td>
<td>Age</td>
</tr>
<tr>
<td></td>
<td>Sex of child</td>
<td>Male or female child</td>
</tr>
<tr>
<td></td>
<td>Sex of household head</td>
<td>Male or female household head</td>
</tr>
<tr>
<td></td>
<td>Children’s or picture books</td>
<td>Whether or not children have picture books to play with</td>
</tr>
<tr>
<td></td>
<td>Amount of time child left with other children</td>
<td>Child left with other children for more than one hour in a week</td>
</tr>
<tr>
<td></td>
<td>Number of children in household</td>
<td>How many children are in the household?</td>
</tr>
</tbody>
</table>
| **Dependent Variable** | Child Development (Socioemotional) | - Signs of aggression (Child does not kick, bite or hit other children or adults)  
- Emotional stability (Child does not get distracted easily)  
- Social skills (Child gets along well with other children and adults). 0 = yes to only one or no to all the three above 1 = yes to any two of the above |

Source: Author’s Construct, July 2017

#### 3.3.4 Control Variables

While emphasis is placed on the socioeconomic characteristics of households and child development in this study, other studies have shown some relationships between other variables and child development. To ensure that the influence of these variables does not interfere with the result of this study, these “other variables” have been controlled for. These variables include the
region of residence, place of residence (rural or urban), household size, the level of education of the mother, age of child, sex of child, sex of household head, religion of household head and the number of children in the household. The study also considers the amount of time that a child is left with other children in a week as a control variable. Similarly, whether the child attends an early childhood development programme or not, is another variable of interest, which has been included. ECD has been indicated in literature (Cohen et al., 2005; Siddiqi et al., 2007) to boost the chances of a child acquiring early self-confidence, social skills and identifying with their peers. The inclusion here is to find out if this variable has similar effects in the Ghanaian context. There are questions asked in the MICS 2011 children’s questionnaire to help provide an indication of how these variables influence child socioemotional development.

These control variables are not the primary interest in this study but they nonetheless have some effects on child development. That is why they are being controlled for, in order to measure the relative relationship between SES of households and child socioemotional development in Ghana.

### 3.4 Data Analysis Techniques

The data analysis is carried out at three levels; the univariate, bivariate and multivariate levels. At the first stage, a univariate analysis is done to describe the dependent and independent variables used in the study. Descriptive statistics such as tables, frequencies, percentages and figures are used to present the data as may be appropriate.

Bivariate analysis is employed next to establish the level of association between the dependent variable and the independent variables. The dependent variable is the socioemotional development of children, which is measured at the nominal level as being socioemotionally on track or not on track. The independent variable of interest is the socioeconomic status of households, which is measured by the household wealth quintile and the educational level of the household head. Other
independent variables include social relations within the household and immediate environment, the quality of home environment, mother’s educational level, sex of household head, region and place of residence, age and sex of child, number of children in a household and the household size. The chi square test of independence is used at the bivariate level to determine the relationship between the dependent and independent variables. All tests are carried out at 5% (0.05) significance level. Given the fact that the chi square test of association does not tell of the strength of association, the Phi and Cramer’s V test is used to determine how strong the association is between the dependent variable and independent variables.

At the multivariate level, the binary logistic regression is used to determine which of the independent variables influences the dependent variable. The choice of the binary logistic regression model is because the dependent variable is dichotomous which takes on the values of “0” and “1”. In measuring the socioemotional development of children, the child is either socioemotionally on track which takes on the value of “1” or socioemotionally not on track with a value of “0”. The binary logistic regression will help to find the best fit and parsimonious model that will describe the relationship between the dependent and independent variables.

### 3.5 Limitations of the Data

The composite measures of social relations and quality of home environment variables are varied as shown in literature. For instance, some researchers have included parental characteristics such as marital status, domestic violence, mental condition (Aughinbaugh & Gittleman, 2003; Bornstein et al., 2012b; Yunus & Dahlan, 2013) and neighbourhood conditions (Azigwe et al., 2016; Bradley & Corwyn, 2002; Duncan & Brooks-gunn, 2000) as part of the quality of home environment. These have been proved to have compelling influences on child development but they were excluded in the present study because of data limitation in the MICS survey questionnaire.
Also, parental occupation and occupation of the household head have been indicated to have significant relationship with child development. However, these variables were not present in the MICS 2011 survey, making it impossible to include them in this study.
CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.0 Introduction

The present chapter deals with the presentation and analysis of the MICS data used for the study. Descriptive information on each of the variables are presented in the form of frequencies and percentages in figures to help visually depict the distribution of the variables. The chapter also displays the bivariate analysis of the dependent and each of the independent variables using the chi square test of independence to help explain the level of association between them. At the multivariate level, data is presented for the binary logistic regression models at three different levels.

4.1 Univariate Presentation and Analysis of Data

Descriptive statistics are used here to provide information on each of the variables used in the study. Under this section of the analysis, frequencies and percentage distributions are presented in charts on the following categorical variables: sex of child, household economic status, mother’s education and household head’s education. The other variables include region of residence, place of residence, sex of the household head, ECD, child left with other children; and continuous variables – age of child, household size and number of children in a household.

4.1.1 Socioemotional Status of Children

The outcome variable under study here is the socioemotional development of children. This is a composite variable derived from three different questions asked about a child’s socioemotional characteristics. Per the criterion used by the MICS survey, a “yes” answer to any two of the three
questions means that the child is socioemotionally on track in terms of development; otherwise he/she is not. The figure below presents the results of the socioemotional status of children.

**Figure 4.1-1: Child's Socioemotional Status**

![Pie chart showing socioemotional status of children](image)

Source: Computed from MICS Data, July 2017

The data presented in the above figure indicates that about 76% of children aged 36 – 59 months in the sample and by extension, in Ghana, are socioemotionally on track. The remaining 24% are said to be socioemotionally not on track.

### 4.1.2 Household Economic Status (Wealth Status)

The figure below shows the percentages of households in the various categories of wealth in the sample. The categories include the poorest, poor, middle, rich and richest households.

From the data presented in figure 4.1-2 on the next page, almost half (47.1%) of the households included in the sample were among the poorest households in Ghana while 20.2% of them were poor. At the other end of the economic continuum, only 8.1% of the richest households were
included in the sample and 14.1% of those in the middle between poorest and richest were included in the sample.

Figure 4.1-2: Household Economic Status (Wealth quintile)

Source: Computed from MICS Data, July 2017

4.1.3 Education of Household Head

This variable, together with the household wealth quintile, form the socioeconomic status of the households which is the independent variable.

The data presented in the figure reveals that people with no education headed majority (55.8%) of the households that were included in the sample. The data also discloses that people with middle or JHS education headed almost a quarter (22.7%) of the sampled households. People with senior high school or higher education headed a smaller percentage (6.6%) of the households.

Figure 4.1-3 below shows the educational level of the household heads.
4.1.4 Quality of Home Environment

A number of items were put together to construct the quality of home environment variable. These include availability of household objects and homemade/shop toys with which the child plays. These are combined in one composite variable called quality of home environment with four different categories namely; no playing things at all, household objects only, homemade/shop toys only, and household objects and homemade/shop toys.

The results shown in figure 4.1-4 on the next page indicate that, in a large number of the households in Ghana, children largely play with household objects or objects from outside the home. About 40.1% of the respondents indicated that their children play with only household objects compared to homemade toys or toys bought from the shop (6.3%). A large number (45.6%) of the children play with both household objects and toys.
Figure 4.1-4: Quality of Home Environment

![Figure 4.1-4: Quality of Home Environment](image)

<table>
<thead>
<tr>
<th>Playing Things</th>
<th>Percentage Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>No playing things</td>
<td>7.9</td>
</tr>
<tr>
<td>Household objects only</td>
<td>40.1</td>
</tr>
<tr>
<td>Homemade/shop toys only</td>
<td>6.3</td>
</tr>
<tr>
<td>Household objects and toys</td>
<td>45.6</td>
</tr>
</tbody>
</table>

Source: Computed from MICS Data, July 2017

4.1.5 Social Interaction with Child within Household

The social interaction variable is a composite variable comprising of four categories. The categories include 0 = no activities with child, 1 = engage child in one activity, 2 = engage child in two activities and 3 = engage child in three or more activities. The types of activities that household members engage the child with are identified in the MICS survey to include reading books with/to child, telling stories to child, singing songs with/for child, taking child outside for outdoor activities and playing with child. These items were combined to constitute the social interaction variable and the idea is to determine the number of activities engaged with a child and how that affect the latter’s socioemotional development.

Figure 4.1-5 presents the percentage distribution of the social interaction variable (number of social activities that household members engage child in).
Figure 4.1-5: Engage in Social Activities with Child within Household

![Bar chart showing percentage distribution of households engaging children in social activities](chart)

Source: Computed from MICS Data, July 2017

The frequency analysis shows that the highest percentage (47.5%) of households engage their children in in three or more social activities, followed by households that engage child in two activities (26.5%). About 13.3% of households engage their children in only one social activity and 12.7% of households do not engage their children in any social activity as the data has shown.

### 4.1.6 Early Childhood Development (ECD) Programme

Children enrolment into ECD educational programme has been on the increase in recent years especially with one of the goals of the World Fit for Children programme being to promote early childhood education. Also, with the Ghana’s Early Childhood Care and Development (ECCD) policy of 2004, which seeks to provide a good start for children, early education and learning has been an important strategy for the implementation of this policy (MICS Ghana, 2011). Studies have shown the importance of pre-school programmes in preparing children for school and the effect it has on their cognitive abilities. This study includes ECD as a variable in order to control
for its effects on child socioemotional development as early exposure could contribute to the social skills and emotional alignment of the child in many ways.

The figure below shows the percentage distribution of children who attended one form of early childhood educational programme or another, or did not attend any early childhood education, at the time of the MICS survey in 2011. Respondents were asked whether or not child attended early childhood education programme.

*Figure 4.1-6: Child Attends Early Childhood Education*

![Pie chart showing percentage of children who attended early childhood education.]

Source: Computed from MICS Data, July 2017

From the responses to the question, more than half (57%) of children, 3 to 5 years in the sample attended some form of early childhood educational programme at the time of the survey.

**4.1.7 Children’s Books or Picture Books**

Another variable of interest is whether or not there are children’s books or picture books available to children to play with. Children’s or picture books are learning aids that help the child to have an appreciation of the world of things and their environment early in life (MICS Ghana, 2011;
UNICEF, 2002). Illustrative colour pictures in children’s books have been used to test the IQs of children and are a great source for building the visual acumen of children in early years (Deckers, Thomas; Falk, Armin; Kosse, Fabian; Schildberg-Hörisch, 2015). It is for this reason that this variable was included to find the effects that children’s books may have on the socioemotional development of children in Ghana. The figure below presents the percentage distribution of children who have those books and those who do not have them.

**Figure 4.1-7: Children’s Books or Picture Books**

Source: Computed from MICS Data, July 2017

### 4.1.8 Child Left with Other Children

This variable seeks to identify the effects that leaving a child with other children for more than one hour in a week will have on the former’s socioemotional development. About 20% of respondents said they leave their child with other children for more than an hour in a week. The table below presents the percentage distribution of yes and no responses to the question.
4.1.9 Sex of Child

The data revealed that 1,560 of the children within the ages of 36 and 59 months were males representing about 50.6% of the total number of children. The female children in the sample represented 49.4% of the total sample size. This sex distribution is to be expected because of the established fact that at birth, the sex ratio of males to females is often between 103 and 105.

Figure 4.1-9 shows the sex distribution by percentage of the children between ages 36 to 59 months for whom the socioemotional development questions were tailored in the MICS survey.
Figure 4.1-9: Sex of Child

Source: Computed from MICS Data, July 2017

4.1.10 Age of Child, Number of Children in Household and Household Size

The age of child in months, number of children in the household and the household size are presented in the table below as continuous variables.

Table 4.1-1: Age of Child in Months, Household Size and Number of Children in Household

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Range</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age of child in months</td>
<td>47</td>
<td>23</td>
<td>36</td>
<td>59</td>
</tr>
<tr>
<td>Household size</td>
<td>6</td>
<td>24</td>
<td>2</td>
<td>26</td>
</tr>
<tr>
<td>Number of children in household</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td>6</td>
</tr>
</tbody>
</table>

Source: Computed from MICS Data, July 2017

The age of child is in months and for the purpose of this study, the children between 36 and 59 months old (i.e. 3 to 5 years) are considered. This is because the questions that were asked on the socioemotional development of children were limited to this age range. Under this criterion therefore, the mean age of children was 47 months with a minimum of 36 and maximum of 59 months.
The household size represents the total number of members in each household. From the table above, the mean number of household members in the sample was 6 with a minimum of 2 members in a household and a maximum of 26.

Similarly, the highest number of children within this age range in a household was 6 and minimum of 1. The mean number of children in a household was 2.

### 4.1.11 Sex of Household Head

The figure below shows the distribution of household heads by sex.

*Figure 4.1-10: Sex of Household Head*

A male headed majority (73.5%) of the households at the time of the survey. This is to be expected in the Ghanaian society as it is in most societies were males are largely the heads of households. This is because most African societies are patriarchal in nature and even in matriarchal societies, the female heads often only play ceremonial roles. The oldest male member of the household is often considered the head of the household. This is true irrespective of who the breadwinner of the household is.
4.1.12 Mother’s Level of Education

The level of education of the mother is categorised into four, namely; no education, primary education, middle school or junior high school and senior high school or higher. The result is presented in figure 4.1-11 below.

The data revealed that majority of the mothers did not have education at all. About 57.3% of the mothers represented this proportion of mothers, compared to 17.2% who had only primary level education, 19.1% attained either middle school or junior high school education and only 6.4% of the respondents had senior high school or higher education.

Figure 4.1-11: Mother’s Educational Level

Source: Computed from MICS Data, July 2017

4.1.13 Religious Affiliation of Household Head

The religious affiliation of the household head is included as a control variable in order to determine the effects of religion on socioemotional development of children. The percentage distribution of this variable is presented in the figure below.
4.1.14 Region of Residence

The survey was carried out across all the ten regions of Ghana. The results of the regional distribution of the respondents are presented in the figure below.

Source: Computed from MICS Data, July 2017
More than half of the sample taken for this study was in the three regions of the north with Northern region topping the list with 831 (27%), Upper West (457, 14.8%) and Upper East with 429 (13.9%). Central region also had a substantial number of respondents at 393 (12.8%). The least number of respondents were from Eastern region which had 134 (4.4%) of the total number of respondents.

4.1.15 Type of Place of Residence

There was urban/rural distribution of respondents to enable a comparison of the urban and rural influences on child development. The data presented in figure 4.1-14 below shows that 72% of respondents were taken from the rural areas and the rest (28%) from urban areas.

Figure 4.1-14: Type of Place of Residence

Source: Computed from MICS Data, July 2017
4.2 Bivariate Analysis: Association between Dependent and Independent Variables

This section provides an analysis of the relationship or association between child socioemotional development and each of the independent variables with the help of cross tabulations. The independent variables include socioeconomic status of households (wealth quintile and educational level of household head), social interaction within the household, the quality of home environment, ECD, availability of children’s books, amount of time child is left with other children, number of children in a household, household size and mother’s level of education. The rest of the variable are age and sex of the child, sex of the household head, religious affiliation of the household head, place of residence (rural/urban) and region of residence.

The Pearson’s Chi-square test of independence is computed to establish the association between the dependent and independent variables at a significance level (alpha) of 0.05. Where the chi-square test establishes an association, the Phi and Cramer’s V test is used to determine the strength of association between the variables.

4.2.1 SES of Households and Socioemotional Development (SED) of Children

Table 4.2-1 below presents the results of the analysis of relationship between SES of households and SED of children.
### Table 4.2-1: Relationship between Households' SES and Child's SED

| Household Economic Status | SED of Child |  |
|---------------------------|--------------|
|                           | Socioemotionally not on track | Socioemotionally on track |
| Poorest                   | 319 (22.0%)  | 1132 (78.0%)  |
| Poor                      | 154 (24.8%)  | 467 (75.2%)   |
| Middle                    | 105 (24.2%)  | 328 (75.8%)   |
| Rich                      | 101 (31.1%)  | 224 (68.9%)   |
| Richest                   | 63 (25.2%)   | 187 (74.8%)   |
| **Total**                 | **742 (24.1%)** | **2338 (75.9%)** |

$\chi^2 = 12.54$  \hspace{1cm}  df = 4  \hspace{1cm}  p$-value = 0.014  \hspace{1cm}  $\phi = 0.064$  \hspace{1cm}  $\alpha = 0.05$

Source: Computed from MICS (2011) data, June 2017

The p-value (0.014) indicates that there is a statistically significant relationship between the economic status of households and children’s socioemotional development at the 95% significance level. The chi-square value is 12.54 with a degree of freedom (df) = 4 and phi = 0.064. The phi statistic measures the strength of relationship between the two variables.

It should be noted however that, even though there is an association between households’ SES and child socioemotional development as predicted by the chi-square statistics, the percentages on the various economic strata do not clearly provide evidence to the effect that children from richer households have healthier socioemotional development than those from poorer households. For instance, the percentage of children from the poorest households who are socioemotionally on track is 78.0% compared to 74.8% for those in the richest households. Indeed, the percentage of children in the poorest households who are on track on their socioemotional development is higher than all the other levels of economic status.

#### 4.2.2 Education of Household Head and Child’s Socioemotional Development

The table below displays the results of the relationship between education of household head and child’s socioemotional development.
Table 4.2-2: Education of Household Head and Child’s Socioemotional Development

<table>
<thead>
<tr>
<th>Educational Level of Household Head</th>
<th>SED of Child</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Socioemotionally not on track</td>
<td>Socioemotionally on track</td>
<td></td>
</tr>
<tr>
<td>No Education</td>
<td>398 (23.1%)</td>
<td>1322 (76.9%)</td>
<td></td>
</tr>
<tr>
<td>Primary Education</td>
<td>116 (25.3%)</td>
<td>342 (74.7%)</td>
<td></td>
</tr>
<tr>
<td>Middle/JHS Education</td>
<td>188 (26.9%)</td>
<td>512 (73.1%)</td>
<td></td>
</tr>
<tr>
<td>Senior High School or Higher</td>
<td>40 (19.8%)</td>
<td>162 (80.2%)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>742 (24.1%)</td>
<td>2338 (75.9%)</td>
<td></td>
</tr>
</tbody>
</table>

$\chi^2 = 6.20$  $df = 3$  $p$-value = 0.102  $Phi = 0.045$

Source: Computed from MICS Data, 2017

The relationship between the educational level of the household head and child’s socioemotional development is not statistically significant at 95% confidence level. However, it is noteworthy to indicate that household heads with senior high school or higher education have the highest number of children who are on track in their socioemotional development. The results reveal that 80.2% of children who are socioemotionally on track have the heads of their households having senior high school or higher educational attainment, compared to 73.1% of children in households with heads who have middle school or JHS education.

4.2.3 Quality of Home Environment and Child’s Socioemotional Development

The home environment variable was composed of two items based on questions posed to respondents in the MICS survey. The questions were asked on the following items: 1) child plays with household or outside objects, 2) child plays with homemade toys, 3) child plays with toys bought from shop or manufactured toys. Items 2 and 3 were merged together because their numbers were too small. The items were put into a composite variable to form the quality of home environment variable.
The variable was found to have a positive significant association with child’s socioemotional development with a p-value of 0.005. The analysis showed that many (83.2%) of the children with no playing things at all are socioemotionally on track compared to those who play with household objects only (76.6%) and homemade/shop toys (79.4%).

The table 4.2-4 below presents the data on the quality of home environment variable.

**Table 4.2-3: Quality of Home Environment and Child Socioemotional Development**

<table>
<thead>
<tr>
<th>Quality of home environment</th>
<th>SED of child</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Socioemotionally not on track</td>
<td>Socioemotionally on track</td>
<td></td>
</tr>
<tr>
<td>No playing things</td>
<td>41 (16.8%)</td>
<td>203 (83.2%)</td>
<td></td>
</tr>
<tr>
<td>Household objects only</td>
<td>289 (23.4%)</td>
<td>947 (76.6%)</td>
<td></td>
</tr>
<tr>
<td>Homemade/shop toys only</td>
<td>40 (20.6%)</td>
<td>154 (79.4%)</td>
<td></td>
</tr>
<tr>
<td>Household objects and toys</td>
<td>372 (26.5%)</td>
<td>1034 (73.5%)</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>742 (24.1%)</strong></td>
<td><strong>2338 (75.9%)</strong></td>
<td></td>
</tr>
</tbody>
</table>

$\chi^2 = 13.01$  $df = 3$  $p$-value $= 0.005$  $\phi = 0.065$  $\alpha = 0.05$

Source: Computed from MICS Data, July 2017

4.2.4 Social Interaction within Household and Child’s Socioemotional Development

The social interaction variable is measured by a combination of items on parental and caregiver engagement on a number of social activities with children. The activities with which household members engage children include reading books, telling stories, singing songs with child, taking child outside for outdoor activities and/or playing with child.

The analysis reveals that engagement in social activities with child within the household has a positive significant association with the child’s socioemotional development with a p-value of 0.047. Children with whom household members engaged in two social activities were found to be socioemotionally on track than any of the other categories with 79.2% of those children being socioemotionally on track. Also, children with whom household members engage in three or more
social activities were found to be 76.2\% on track in their socioemotional development trajectory. Meanwhile, in households where members do not engage children in any social activities, such children were found to be the least in socioemotional development. The results of the analysis of association between the social interaction variable and the dependent variable are presented in table 4.2-4 below.

**Table 4.2-4: Social Interaction within Household and Child Socioemotional Development**

<table>
<thead>
<tr>
<th>Social Interaction with child within household</th>
<th>SED of child</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Socioemotionally not on track</td>
<td>Socioemotionally on track</td>
<td></td>
</tr>
<tr>
<td>Do not engage child in any activity</td>
<td>93 (26.8%)</td>
<td>298 (73.9%)</td>
<td></td>
</tr>
<tr>
<td>Engage child in one activity</td>
<td>98 (23.9%)</td>
<td>312 (76.1%)</td>
<td></td>
</tr>
<tr>
<td>Engage child in two activities</td>
<td>170 (20.8%)</td>
<td>647 (79.2%)</td>
<td></td>
</tr>
<tr>
<td>Engage child in three or more activities</td>
<td>381 (23.8%)</td>
<td>1081 (76.2%)</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>742 (24.1%)</strong></td>
<td><strong>2338 (75.9%)</strong></td>
<td></td>
</tr>
</tbody>
</table>

\(\chi^2 = 7.94 \quad df = 3 \quad p-value = 0.047 \quad \phi = 0.051 \quad \alpha = 0.05\)

Source: Computed from MICS Data, July 2017

**4.2.5 Early Childhood Development (ECD) and Socioemotional Development**

The question on whether or not the child attends any form of early childhood development educational programme was found not have significant relationship with the child’s socioemotional development at the bivariate level. The chi-square value is 0.410 with p-value of 0.522. The table below shows the relationship between the two variables.
Table 4.2-5: ECD Education Programme and Socioemotional Development

<table>
<thead>
<tr>
<th>Child attends early childhood education programme</th>
<th>Socioemotionally not on track</th>
<th>Socioemotionally on track</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>326 (24.7%)</td>
<td>996 (75.3%)</td>
</tr>
<tr>
<td>Yes</td>
<td>416 (23.7%)</td>
<td>1342 (76.3%)</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 0.410 \quad df = 1 \quad p = 0.522 \quad \phi = 0.012 \quad \alpha = 0.05 \]

Source: Computed from MICS Data, July 2017

4.2.6 Children’s book and Socioemotional Development

This variable intends to find out if there is any association between having children’s books or pictures books to play and learn with, and the socioemotional development of children. The table below shows the association between having children’s books and socioemotional development. The analysis shows that the variable is not statistically significant with socioemotional development at the 95% confidence level. Even though the variable is not significant to socioemotional development of children, the percentage of those who have books and are socioemotionally on track (78.9%) is more than those who do not have picture books. Table 4.4-6 presents the bivariate analysis of children’s books and socioemotional development of children.

Table 4.2-6: Children’s Books and Socioemotional Development

<table>
<thead>
<tr>
<th>Children books and picture books for child</th>
<th>Socioemotionally not on track</th>
<th>Socioemotionally on track</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>649 (24.6%)</td>
<td>1990 (75.4%)</td>
</tr>
<tr>
<td>Yes</td>
<td>93 (21.1%)</td>
<td>348 (78.9%)</td>
</tr>
<tr>
<td>Total</td>
<td>742 (24.1%)</td>
<td>2338 (75.9%)</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 2.54 \quad df = 1 \quad p = 0.111 \quad \phi = 0.029 \quad \alpha = 0.05 \]

Source: Computed from MICS Data, July 2017
4.2.7 Child Left with Other Children

This variable helps us to understand the effect of leaving a child with other children for at least one hour in a week on their socioemotional development. In the MICS survey, the question is asked whether the child was left with other children for more than one hour in the week prior to the survey. The bivariate analysis of this variable showed that leaving a child with other children in the household for more than an hour in a week, has no significant effect on their socioemotional development. However, many (78.6%) of the children who were left with other children were found to be socioemotionally on track, compared to 75.2% of those who answered no to the question. The table below presents the relationship between the two variables.

Table 4.2-7: Child Left with Other Children

<table>
<thead>
<tr>
<th></th>
<th>Socioemotionally not on track</th>
<th>Socioemotionally on track</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child left with other children for more than one hour in a week</td>
<td>No 610 (24.8%)</td>
<td>1853 (75.2%)</td>
</tr>
<tr>
<td></td>
<td>Yes 132 (21.4%)</td>
<td>485 (78.6%)</td>
</tr>
<tr>
<td>Total</td>
<td>742 (24.1%)</td>
<td>2338 (75.9%)</td>
</tr>
</tbody>
</table>

$\chi^2 = 3.07$  df = 1  $p = 0.080$  $\phi = 0.032$  $\alpha = 0.05$

Source: Computed from MICS Data, July 2017

4.2.8 Sex of Child and Socioemotional Development

The sex of a child has been found to have significant relationship with his/her socioemotional development. In table 4.2-8 below, the p-value (0.000) is significant; indicating that there is a significant relationship between sex of a child and the state of their socioemotional development. The results further show that more female children (78.9%) are on a good socioemotional development path, compared to male children (73.0%).
Table 4.2-8: Sex of Child and Socioemotional Development

<table>
<thead>
<tr>
<th>Sex of Child</th>
<th>Socioemotionally not on track</th>
<th>Socioemotionally on track</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>421 (27.0%)</td>
<td>1139 (73.0%)</td>
</tr>
<tr>
<td>Female</td>
<td>321 (21.1%)</td>
<td>1199 (78.9%)</td>
</tr>
<tr>
<td>Total</td>
<td>742 (24.1%)</td>
<td>2338 (75.9%)</td>
</tr>
</tbody>
</table>

\( \chi^2 = 14.50 \quad df = 1 \quad p = 0.000 \quad \phi = 0.069 \quad \alpha = 0.05 \)

Source: Computed from MICS Data, July 2017

In a study on household income and child development in 20 US states, Berger et al. (2010) established a strong relationship between the sex of a child and their behavioural development. In that study, the researchers found that female children were more likely to have better behavioural development than their male counterparts. The findings in table 4.2-8 above support that of Berger and co’s finding.

### 4.2.9 Age of Child, Number of Children in Household, Household Size and Socioemotional Development

Age of child, number of children in household and the household size are measured as continuous variables. Thus, the Pearson Product Moment Correlation is used to determine the association between these variables and socioemotional development of children at the bivariate level. On age of child and socioemotional development, the correlation results showed a significant relation between age of a child and their socioemotional development (\( r = 0.035 \), \( p(\text{one-tailed}) = 0.026 \)) at the 95% significance level. Table 4.2-9 on the next page presents the results of the correlation analysis.
Table 4.2-9: Correlation between Age of Child, Number of Children in Household and Household Size, and Socioemotional Development

<table>
<thead>
<tr>
<th>Descriptives</th>
<th>Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age of Child</strong></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>47</td>
</tr>
<tr>
<td>Covariance</td>
<td>0.103</td>
</tr>
<tr>
<td>St. Deviation</td>
<td>6.86</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>0.035</td>
</tr>
<tr>
<td>p(one-tailed)</td>
<td>0.026</td>
</tr>
<tr>
<td><strong>Number of Children</strong></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>2</td>
</tr>
<tr>
<td>Variance</td>
<td>0.002</td>
</tr>
<tr>
<td>St. Deviation</td>
<td>0.86</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>0.005</td>
</tr>
<tr>
<td>p(one-tailed)</td>
<td>0.382</td>
</tr>
<tr>
<td><strong>Household Size</strong></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>6</td>
</tr>
<tr>
<td>Variance</td>
<td>-0.014</td>
</tr>
<tr>
<td>St. Deviation</td>
<td>3.1</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>-0.011</td>
</tr>
<tr>
<td>p(one-tailed)</td>
<td>0.277</td>
</tr>
</tbody>
</table>

Source: Computed from MICS Data, July 2017

4.2.10 Sex of Household Head and Child’s Socioemotional Development

The bivariate analysis of the sex of household head and socioemotional development of a child showed that there is no significant relationship between them. This means that whether a household is headed by a male or female has no significant association with the socioemotional development of children in the household. The table 4.2-10 below presents the result of these two variables. The chi-square value and p-value are given as 0.851 and 0.356 respectively.


**Table 4.2-10: Sex of Household Head and Child's Socioemotional Development**

<table>
<thead>
<tr>
<th>Sex of Household Head</th>
<th>Socioemotionally not on track</th>
<th>Socioemotionally on track</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>536 (23.7%)</td>
<td>1729 (76.3%)</td>
</tr>
<tr>
<td>Female</td>
<td>206 (25.3%)</td>
<td>609 (74.7%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>742 (24.1%)</strong></td>
<td><strong>2338 (75.9%)</strong></td>
</tr>
</tbody>
</table>

\[ \chi^2 = 0.851 \quad df = 1 \quad p\text{-value} = 0.356 \quad \phi = 0.017 \]

Source: Computed from MICS Data, July 2017

**4.2.11 Mother’s Education and Child’s Socioemotional Development**

The educational level of mothers is tabulated with child socioemotional development and the results reveal a statistically significant relationship between the two variables. Table 4.2-11 below presents the result for mother’s education and child socioemotional development. The chi-square test of association produced the following results; \( \chi^2 = 9.53, df = 3, p\text{-value} = 0.023 \) and \( \phi = 0.056 \). The phi value means that even though there exists a relationship between mother’s education and child socioemotional development, such a relationship is weak.

**Table 4.2-11: Mother’s Education and Child Socioemotional Development**

<table>
<thead>
<tr>
<th>Mother's education</th>
<th>SED of child</th>
<th>Socioemotionally not on track</th>
<th>Socioemotionally on track</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Education</td>
<td>394 (22.3%)</td>
<td>1372 (77.7%)</td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>141 (26.7%)</td>
<td>388 (73.3%)</td>
<td></td>
</tr>
<tr>
<td>Middle/JHS</td>
<td>163 (27.7%)</td>
<td>425 (72.3%)</td>
<td></td>
</tr>
<tr>
<td>High School+</td>
<td>44 (22.3%)</td>
<td>153 (77.7%)</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>742 (24.1%)</strong></td>
<td><strong>2338 (75.9%)</strong></td>
<td></td>
</tr>
</tbody>
</table>

\[ \chi^2 = 9.53 \quad df = 3 \quad p\text{-value} = 0.023 \quad \phi = 0.056 \quad \alpha = 0.05 \]

Source: Computed from MICS Data, June 2017

Another observation from the result worthy of note is the distribution in the levels of education of mothers and socioemotional status of children. The results show that the percentage of children
born to mothers who have no education are as much on track in their socioemotional development as children born to mothers with high school or higher education (77.7%). In between these two, the percentages of children on track in socioemotional development are less at; primary (73.3) and middle/JHS (72.3). This inconsistency in the pattern of relationship between mother’s education and child socioemotional development is probably what explains the weak relationship.

4.2.12 Religion of Household Head and Child’s Socioemotional Development

The religious affiliation of the head of a household has been found to have statistically significant association with the socioemotional development of children. The chi-square test of association produced a p-value of 0.032 which is less than the alpha level of 0.05 signifying that there is significant relation between the variables. The chi-square value is 8.80 with a df = 3.

Table 4.2-12: Religion of Household Head and Child Socioemotional Development

<table>
<thead>
<tr>
<th>Religion of Household head</th>
<th>Socioemotionally not on track</th>
<th>Socioemotionally on track</th>
</tr>
</thead>
<tbody>
<tr>
<td>Christianity</td>
<td>372 (26.0%)</td>
<td>1061 (74.0%)</td>
</tr>
<tr>
<td>Islam</td>
<td>212 (21.0%)</td>
<td>796 (79.0%)</td>
</tr>
<tr>
<td>Traditional</td>
<td>109 (23.8%)</td>
<td>349 (76.2%)</td>
</tr>
<tr>
<td>Other</td>
<td>49 (27.1%)</td>
<td>132 (72.9%)</td>
</tr>
<tr>
<td>Total</td>
<td><strong>742 (24.1%)</strong></td>
<td><strong>2338 (75.9%)</strong></td>
</tr>
</tbody>
</table>

$\chi^2 = 8.80 \quad df = 3 \quad p$-value = 0.032 \quad \phi = 0.053 \quad \alpha = 0.05

Source: Computed from MICS Data, June 2017

In table 4.2-12 above, a larger percentage (79.0%) of children whose household heads are Muslims are socioemotionally on track followed by children from traditional religious households (76.2%). The results indicate that 74.0% of children from Christian religious backgrounds are socioemotionally on track. From this result, it can be said that children from Muslim households
or whose household heads are Muslims are likely to develop well socioemotionally than children from other religious backgrounds.

In past literature, religion has been found to have statistical significance with some child development indicators, even though no data has been found to have studied religion and socioemotional development of children. For instance, Opoku (2014) studied socioeconomic status of women and child’s educational attainment in Ghana and found that religion of head of household influenced child’s educational attainment. Similarly, Lartey et al. (2016) observed a significant relationship between religious affiliation of household heads and child survival in Ghana.

4.2.13 Region of Residence and Child’s Socioemotional Development

Table 4.2-13 below displays data on the region of residence and child socioemotional development.

Table 4.2-13: Region and Child Socioemotional Development

<table>
<thead>
<tr>
<th>Region of residence</th>
<th>SED of child</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Socioemotionally not on track</td>
<td>Socioemotionally on track</td>
<td></td>
</tr>
<tr>
<td>Western</td>
<td>18 (11.3%)</td>
<td>142 (88.8%)</td>
<td></td>
</tr>
<tr>
<td>Central</td>
<td>113 (28.8%)</td>
<td>280 (71.2%)</td>
<td></td>
</tr>
<tr>
<td>Greater Accra</td>
<td>52 (31.9%)</td>
<td>111 (68.1%)</td>
<td></td>
</tr>
<tr>
<td>Volta</td>
<td>76 (43.9%)</td>
<td>97 (56.1%)</td>
<td></td>
</tr>
<tr>
<td>Eastern</td>
<td>39 (29.1%)</td>
<td>95 (70.9%)</td>
<td></td>
</tr>
<tr>
<td>Ashanti</td>
<td>50 (27.6%)</td>
<td>131 (72.4%)</td>
<td></td>
</tr>
<tr>
<td>Brong Ahafo</td>
<td>37 (23.3%)</td>
<td>122 (76.7%)</td>
<td></td>
</tr>
<tr>
<td>Northern</td>
<td>141 (17.0%)</td>
<td>690 (83.0%)</td>
<td></td>
</tr>
<tr>
<td>Upper East</td>
<td>78 (18.2%)</td>
<td>351 (81.8%)</td>
<td></td>
</tr>
<tr>
<td>Upper West</td>
<td>138 (30.2%)</td>
<td>319 (69.8%)</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>742 (24.1%)</strong></td>
<td><strong>2338 (75.9%)</strong></td>
<td></td>
</tr>
</tbody>
</table>

χ² = 105.48  df = 9  p-value = 0.000  φ = 0.185  α = 0.05

Source: Computed from MICS Data, June 2017
Extensive research results have proved that the environment in which a child lives has significant influence on their socioemotional development. NSCDC (2004) report on children’s emotional development asserts that there is a strong influence of the environment in which children live, on their emotional development. The results shown in the table above show a statistically significant relationship between region of residence and child socioemotional development in Ghana. The chi-square test of independence shows a statistical significance between region of residence and socioemotional development of children at the 95% alpha level. The chi-square value is 105.48 with degree of freedom of 9 and p-value of 0.000. The phi value is 0.185 indicating a moderate strength of relationship between the two variables.

The results of the analysis indicate that majority of children born in the Western region are the most socioemotionally healthy in Ghana with 88.8% of children from the region being socioemotionally on track. This is followed by children from the Northern region (83.0%) and Upper East (81.8%). At the bottom of the socioemotional development, children from the Volta region have the least socioemotional development record with a percentage of 56.1 children from the region being socioemotionally on track. An interesting observation here worth noting is that Greater Accra region which is home to capital city of Ghana, is at the bottom just before the last (Volta), when it comes to the status of child socioemotional development.

The findings here corroborate the observation of the “Total Environment Assessment Model of Early Childhood Development” report presented in 2007 by Arjumand Siddiqi and his colleagues. In that report, the researchers suggested that many aspects of regional environments such as physical division, political regions, social and economic, and degree of urbanization largely influence early childhood development.
4.2.14 Type of Place of Residence and Child’s Socioemotional Development

Table 4.2-14 below displays the bivariate analysis of the place of residence and socioemotional development of children. The results show no significant association between urban/rural residence and child’s socioemotional development. The analysis produced a chi-square value of 3.134 and p-value of 0.077 at the 95% CI.

*Table 4.2-14: Type of Place of Residence and Child's Socioemotional Development*

<table>
<thead>
<tr>
<th>Place of residence</th>
<th>SED of child</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Socioemotionally not on track</td>
<td>Socioemotionally on track</td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>229 (26.3%)</td>
<td>643 (73.7%)</td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>513 (23.2%)</td>
<td>1695 (76.8%)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>742 (24.1%)</td>
<td>2338 (75.9%)</td>
<td></td>
</tr>
</tbody>
</table>

$\chi^2 = 3.134$  \hspace{1cm} df = 1  \hspace{1cm} p-value = 0.077

Source: Computed from MICS Data, July 2017

In the next section of this chapter, results of the multivariate analysis are presented at three different stages. The first stage considers the independent and the dependent variables to determine the direct effects of the former on the latter. At the second stage, the intermediary variables are added to the model. The final model includes all the control variables in the study in order to determine the predictors of socioemotional development of children in Ghana.
4.3 Multivariate Analysis: Determinants of Child Socioemotional Development

A binary logistic regression analysis was conducted to predict the factors that influence socioemotional development of children at three levels. At the first level, the independent variable (socioeconomic status of households) was regressed with socioemotional development to determine its effects on the latter. The socioeconomic status includes the wealth index of households and educational level of the household head. At the second level, the independent variable, together with the proximate variables of social interactions/activities and quality of home environment were put into the regression model with the socioemotional development of children to determine the effects of the intermediate variables on the influence of SES on socioemotional development. The third model considers all the independent variables discussed under section 3.3 in chapter three as predictors of socioemotional development.

With each of the categorical variables, one category is referred to as the reference category (ref) and all others are interpreted in reference to the reference category. The chances that a child will be socioemotionally on track, are interpreted with the help of the odds ratio (OR). An odds ratio that is greater than one indicates a positive association of the variable with socioemotional development and so any category with OR > 1 increases the odds of being socioemotionally on track compared to the reference category of that variable. On the other hand, an OR less than one decreases the odds of being socioemotionally on track. The significance of a predictor able to predict the socioemotional development is measured using the p-value, at an alpha level of 0.05.

4.3.1 Model 1: Estimation of Socioemotional Development Using SES of Households

Model 1 is presented in table 4.3-1 below. In this model, a regression analysis of the SES variables against a constant only model was found to be statistically significant ($\chi^2 = 18.695, p = 0.009$ with $df = 7$). This result shows that the model as a whole has reliably distinguished between children
who are socioemotionally on track and those who are not. The Nagelkerke’s $R^2$ value of 0.09 means that the model explains approximately 0.9% of the variation in child socioemotional development and this indicates a weak relationship between SES of households and child’s socioemotional development at this point. The overall group classification prediction success was 75.9%. Also the Hosmer and Lemeshow (H-L) goodness-of-fit test of 0.783 is not statistically significant and that means the model estimates fit the data at acceptable level and thus the model is a good fit. The result is presented in the table below.

**Table 4.3-1: Estimation of Child Socioemotional Development Using SES of Households**

<table>
<thead>
<tr>
<th>Variables</th>
<th>OR 95% C.I.</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wealth Status of Household</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poorest</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>0.86 [0.69, 1.08]</td>
<td>0.189</td>
</tr>
<tr>
<td>Middle</td>
<td>0.88 [0.67, 1.15]</td>
<td>0.334</td>
</tr>
<tr>
<td>Rich</td>
<td>0.60 [0.45, 0.80]</td>
<td>0.001</td>
</tr>
<tr>
<td>Richest</td>
<td>0.72 [0.51, 1.03]</td>
<td>0.069</td>
</tr>
<tr>
<td>Household head's education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Education</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>0.93 [0.73, 1.19]</td>
<td>0.577</td>
</tr>
<tr>
<td>Middle/JHS</td>
<td>0.94 [0.76, 1.18]</td>
<td>0.615</td>
</tr>
<tr>
<td>High School +</td>
<td>1.55 [1.03, 2.34]</td>
<td>0.035</td>
</tr>
<tr>
<td>Constant</td>
<td>3.595</td>
<td></td>
</tr>
<tr>
<td>Correct % Prediction</td>
<td>75.90%</td>
<td></td>
</tr>
<tr>
<td>Nagelkerke $R^2$</td>
<td>0.90%</td>
<td></td>
</tr>
<tr>
<td>Model Chi-square (df)</td>
<td>18.695 (7)</td>
<td></td>
</tr>
</tbody>
</table>

*ref = Reference category Sample size = 3080 *p < 0.05

The results in model 1 indicate that wealth status of households has a significant influence on children’s socioemotional development, with a p-value of 0.012. However, this influence reduces with increasing wealth because the odds that child born to the poorest households will be socioemotionally on track is greater than the odds of child born to households with higher wealth.
status. For example, the results revealed that children born to rich households are 40 percent less likely to be socioemotionally on track when compared to children in the poorest households. Meanwhile, being born in poor, middle or the richest households does not have significant influence on a child’s socioemotional development.

The educational level of household head does not have significant influence on child’s socioemotional development overall. However, it is important to note that there is a positive relationship between household heads with senior high school or higher education and a child being socioemotionally on track. The regression showed that children born to households whose heads have senior high school or higher education are about 0.55 times more likely to be socioemotionally on track when compared to those children born in households were the heads have no education.

4.3.2 Model 2: Estimation of Socioemotional Development of Children Using SES of Households and Mediating Variables

In model 2, the main independent variables together with the intermediary or proximate variables of social interaction/activities and quality of home environment are tested against a constant only model. Literature has shown that for the most part, the influence of SES on child development is mediated by some social relations variables and quality of the home environment. For this reason, this model seeks to establish how the presence of these intermediate variables could affect the influence of the socioeconomic status of households on the socioemotional development of children. Table 4.3-2 shows the estimation of socioemotional development of children using the socioeconomic status of households, social interaction within the household and quality of the home environment.
### Table 4.3-2: Estimation of SED of Children Using SES of Households and Mediating Variables

#### Model 2

<table>
<thead>
<tr>
<th>Variables</th>
<th>OR 95% C.I.</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wealth Status of Household</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poorest (ref)</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>0.86 [0.68, 1.08]</td>
<td>0.182</td>
</tr>
<tr>
<td>Middle</td>
<td>0.87 [0.66, 1.13]</td>
<td>0.293</td>
</tr>
<tr>
<td>Rich*</td>
<td>0.61 [0.45, 0.82]</td>
<td>0.001</td>
</tr>
<tr>
<td>Richest</td>
<td>0.75 [0.51, 1.08]</td>
<td>0.119</td>
</tr>
<tr>
<td><strong>Household head’s education</strong></td>
<td></td>
<td>0.072</td>
</tr>
<tr>
<td>No Education (ref)</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>0.93 [0.73, 1.19]</td>
<td>0.577</td>
</tr>
<tr>
<td>Middle/JHS</td>
<td>0.94 [0.75, 1.18]</td>
<td>0.603</td>
</tr>
<tr>
<td>Senior High School or Higher*</td>
<td>1.60 [1.06, 2.41]</td>
<td>0.024</td>
</tr>
<tr>
<td><strong>Quality of Home Environment</strong></td>
<td></td>
<td>0.006</td>
</tr>
<tr>
<td>No playing things (ref)</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Household objects only*</td>
<td>1.58 [1.10, 2.27]</td>
<td>0.014</td>
</tr>
<tr>
<td>Homemade/shop toys</td>
<td>1.37 [0.92, 2.02]</td>
<td>0.120</td>
</tr>
<tr>
<td>Household objects and toys*</td>
<td>1.25 [0.76, 1.94]</td>
<td>0.002</td>
</tr>
<tr>
<td><strong>Social Interaction within Household</strong></td>
<td></td>
<td>0.031</td>
</tr>
<tr>
<td>No activities with child (ref)</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Engage in only one activity</td>
<td>1.00 [0.72, 1.38]</td>
<td>0.985</td>
</tr>
<tr>
<td>Engage in two activities</td>
<td>1.21 [0.90, 1.62]</td>
<td>0.201</td>
</tr>
<tr>
<td>Engage in three or more activities*</td>
<td>1.32 [0.70, 1.20]</td>
<td>0.006</td>
</tr>
</tbody>
</table>

| Constant                         | 3.54                  |         |
| **Correct % Prediction**         | 75.90%                |         |
| **Hosmer and Lemeshow Test**     | 52.60%                |         |
| **Nagelkerke R²**                | 1.90%                 |         |
| **Model Chi-square (df)**        | 38.94 (13)            |         |

*ref = Reference category    Sample size = 3080  *p < 0.05

The results show that the model is statistically significant ($\chi^2 = 38.94, p = 0.000$ with $df = 13$).

This indicates that the predictors in this model have reliably distinguished between children who are socioemotionally on track and those who are not. The model explains approximately 1.9% (Nagelkerke $R^2$) of this variation in the dependent variable. However, this indicates a weak relationship between the predictors and the predicted, with a prediction success rate of 75.9%. The
Hosmer and Lemeshow (H-L) goodness-of-fit test (0.526) is greater than the confidence level of 0.05 which means that the model is a good fit.

The results revealed no apparent difference between SES being directly modelled with socioemotional development and being modelled with the mediating variables. That means the mediating variables have no much influence on the association between SES and socioemotional development. However, senior high school or higher educational attainment of the household has been found to have positive association with socioemotional development. The results revealed that there is 60% chance of a child being socioemotionally on track when the child is born into a household where the head has senior high school or higher education.

The quality of home environment variable was found to have a significant association with socioemotional development of children with a p-value of 0.006. There was a positive association between a child playing with household object and both homemade/shop toys and household objects, and socioemotional development. The results showed that children who played with household objects have 58% likelihood of being socioemotionally on track compared to children who do not play with any objects. Similarly, children who play with both homemade/shop toys and household objects have 25% more chance of being socioemotionally on track compared to those who do not play with any objects. There is no significant relationship between children who play with only homemade/shop toys and their socioemotional development.

The social interaction variable has been shown in the model to have a significant association with socioemotional development of children. The variable has a significant p-value of 0.031. The results showed that engaging children in three or more social activities has a significant impact on their socioemotional development. Children whose household members engage them in three or more social activities have about 32% more chances of being socioemotionally on track compared
to those who are not engaged in any social activities. In other words, the odds that a child will be socioemotionally on track increases by 32% when household members engage the child in three or more social activities (OR = 1.32). Engaging children in one or two social activities have no significant relationship with socioemotional development.

4.3.3 Model 3: Estimation of Socioemotional Development of Children Using a Variety of Predictors

The third model includes all the variables in the study. A test of the full model against an intercept only model was statistically significant ($\chi^2 = 182.68, p = 0.000$ with $df = 38$). The model summary indicates that the predictors as a set reliably distinguish between children who are socioemotionally on track and those who are not. The model explains approximately 8.6% ($\text{Nagelkerke } R^2$) of the variation in the dependent variable. The Nagelkerke’s $R^2$ of 0.86 however, indicates a weak relationship between the predictors and the predicted classification into socioemotionally on track and not on track, with an overall prediction success rate of 76.1%. The Hosmer and Lemeshow (H-L) goodness-of-fit test (0.496) shows that the model estimates fit the data at acceptable level and is a good fit.

As shown in the regression model in table 4.3-3 below, several variables made significant contribution to the overall model. These include quality of home environment, engaging child in three or more social activities, the availability of children’s books or picture books, leaving the child with other children for more than one hour in a week, age and sex of a child, and the region of residence.
**Table 4.3-3: Estimation of Socioemotional Development of Children Using a Variety of Predictors**

<table>
<thead>
<tr>
<th>Indicators</th>
<th>OR 95% C.I.</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wealth Status of Household</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poorest (ref)</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>1.03 [0.79, 1.34]</td>
<td>0.926</td>
</tr>
<tr>
<td>Middle</td>
<td>1.12 [0.80, 1.58]</td>
<td>0.506</td>
</tr>
<tr>
<td>Rich</td>
<td>0.70 [0.47, 1.03]</td>
<td>0.071</td>
</tr>
<tr>
<td>Richest</td>
<td>0.83 [0.49, 1.39]</td>
<td>0.479</td>
</tr>
<tr>
<td><strong>Household head's education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Education (ref)</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>1.08 [0.82, 1.42]</td>
<td>0.579</td>
</tr>
<tr>
<td>Middle/JHS</td>
<td>1.06 [0.82, 1.39]</td>
<td>0.642</td>
</tr>
<tr>
<td>Senior High School or Higher</td>
<td>1.37 [0.87, 2.13]</td>
<td>0.171</td>
</tr>
<tr>
<td><strong>Quality of Home Environment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No playing things (ref)</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Household objects only*</td>
<td>1.81 [1.25, 2.64]</td>
<td>0.002</td>
</tr>
<tr>
<td>Homemade/shop toys</td>
<td>1.30 [0.87, 1.96]</td>
<td>0.203</td>
</tr>
<tr>
<td>Household objects and toys</td>
<td>0.88 [0.72, 1.06]</td>
<td>0.179</td>
</tr>
<tr>
<td><strong>Social Interaction within Household</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No activities with child (ref)</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Engage in one activity</td>
<td>0.78 [0.68, 1.34]</td>
<td>0.793</td>
</tr>
<tr>
<td>Engage in two activities</td>
<td>1.07 [0.79, 1.45]</td>
<td>0.643</td>
</tr>
<tr>
<td>Engage in three or more activities*</td>
<td>1.09 [0.80, 1.47]</td>
<td>0.031</td>
</tr>
<tr>
<td><strong>Religious Affiliation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Christian(ref)</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Islamic</td>
<td>1.07 [0.85, 1.36]</td>
<td>0.571</td>
</tr>
<tr>
<td>Traditional</td>
<td>0.95 [0.71, 1.26]</td>
<td>0.713</td>
</tr>
<tr>
<td>Other</td>
<td>0.96 [0.67, 1.39]</td>
<td>0.837</td>
</tr>
<tr>
<td><strong>Mother's Educational Level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Education (ref)</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>0.92 [0.70, 1.21]</td>
<td>0.548</td>
</tr>
<tr>
<td>Middle/JHS</td>
<td>0.93 [0.69, 1.25]</td>
<td>0.605</td>
</tr>
<tr>
<td>High School or Higher</td>
<td>0.99 [0.62, 1.59]</td>
<td>0.974</td>
</tr>
<tr>
<td><strong>Number of Children in Household</strong></td>
<td>0.96 [0.86, 1.07]</td>
<td><strong>0.484</strong></td>
</tr>
<tr>
<td><strong>Sex of Household head</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male (ref)</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>0.95 [0.78, 1.17]</td>
<td>0.643</td>
</tr>
<tr>
<td>Children books*</td>
<td>1.75 [1.27, 2.41]</td>
<td><strong>0.001</strong></td>
</tr>
<tr>
<td>Indicators</td>
<td>OR 95% C.I.</td>
<td>P-value</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>-----------------</td>
<td>---------</td>
</tr>
<tr>
<td>Child left with other children*</td>
<td>1.29 [1.01, 1.63]</td>
<td>0.038</td>
</tr>
<tr>
<td>Child attends ECD education</td>
<td>0.96 [0.86, 1.08]</td>
<td>0.484</td>
</tr>
<tr>
<td>Sex of Child</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male (ref)</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Female*</td>
<td>1.42 [1.20, 1.68]</td>
<td>0.000</td>
</tr>
<tr>
<td>Place of Residence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban (ref)</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>1.12 [0.86, 1.44]</td>
<td>0.402</td>
</tr>
<tr>
<td>Region of Residence*</td>
<td></td>
<td>0.000</td>
</tr>
<tr>
<td>Upper West (ref)</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Central*</td>
<td>3.40 [1.92, 6.03]</td>
<td>0.000</td>
</tr>
<tr>
<td>Greater Accra</td>
<td>1.07 [0.75, 1.54]</td>
<td>0.704</td>
</tr>
<tr>
<td>Volta</td>
<td>0.93 [0.57, 1.50]</td>
<td>0.751</td>
</tr>
<tr>
<td>Eastern*</td>
<td>0.59 [0.40, 0.88]</td>
<td>0.010</td>
</tr>
<tr>
<td>Ashanti</td>
<td>0.99 [0.61, 1.60]</td>
<td>0.954</td>
</tr>
<tr>
<td>Brong Ahafo</td>
<td>1.13 [0.73, 1.74]</td>
<td>0.597</td>
</tr>
<tr>
<td>Northern*</td>
<td>1.65 [1.05, 2.58]</td>
<td>0.030</td>
</tr>
<tr>
<td>Upper East*</td>
<td>2.32 [1.73, 3.09]</td>
<td>0.000</td>
</tr>
<tr>
<td>Western*</td>
<td>2.14 [1.53, 3.00]</td>
<td>0.000</td>
</tr>
<tr>
<td>Household Size</td>
<td>0.97 [0.94, 1.00]</td>
<td>0.069</td>
</tr>
<tr>
<td>Age of Child*</td>
<td></td>
<td>0.046</td>
</tr>
<tr>
<td>Constant</td>
<td>1.01 [1.00, 1.03]</td>
<td></td>
</tr>
</tbody>
</table>

Correct % Prediction: 76.10%
Hosmer and Lemeshow Test: 49.60%
Nagelkerke R²: 8.60%
Model Chi-square (df): 182.68(38)

*ref = Reference category
Sample size = 3080
*p < 0.05

Again, in the overall model, SES of households was found not to have significant association with child’s socioemotional development. Both the wealth status (p = 0.110) and educational level of the household (p = 0.572) are not significant at the 95% significance level. However, the mediating variables of quality of home environment (p = 0.001) and social interaction/activities within the household (p = 0.042) were found to have positive significant influence on child’s socioemotional development. The quality of home environment for instance indicated that children who played
with household objects were 81% more likely to develop socioemotionally well compared to children who did not play with any playing things.

Similarly, social interaction/activities with children has a positive influence on their socioemotional development. The results showed children whose parents or caregivers engage them in three or more social activities were 9% more likely to be on track on their socioemotional development when compared to those children not engaged in any social activity. The social activities covered by this study include reading books with/for child, telling stories, singing songs, taking children out for outdoor activities and playing with child. The results showed that engaging children in three or more of these activities increases their chances of being socioemotionally on track by about 9%.

The results also revealed that a child that has children’s books or picture books at their disposal to play or learn with, not only increases their cognitive abilities as suggested by many researchers, but also increases their chances of being socioemotionally on track by about 75%. Leaving a child with other children for more than one hour in a week also has 29% more chances of helping the child to develop socioemotionally well. Female children are found to have better chances (42% more) of being socioemotionally on track compared to male children under similar environmental conditions. Also, the results indicate that as the age of a child increases by month, there is a 1% chance of the child improving in their socioemotional development. Region of residence was seen to have a significant p-value.
CHAPTER FIVE

DISCUSSION OF FINDINGS

5.0 Introduction

This chapter discusses the findings presented in chapter four. The discussion is based on three thematic areas in accordance with the objectives of the study, the hypotheses and connections drawn to other research works on the subject of child development in general and child socioemotional development in particular. Overall, the purpose of this study was to establish the relationship between SES of households and socioemotional development of children in Ghana. The study also sought to determine the influence of social interaction/activities within the household and the quality of home environment on the socioemotional development of children. Thus, the discussion is centred on these three core areas of interest as hypothesised in the first chapter.

In general terms, the multivariate analysis in models 1 and 2 showed significant relationship between household wealth and child’s socioemotional development. Children in rich households were found to be 40% less likely to be socioemotionally on track with compared to children from the poorest households. There was no significant association between households in the other wealth quintiles and children socioemotional development. Wealth status, when modelled directly with socioemotional development or together with the intermediate variables at the multivariate level, showed this trend. However, in model 3 where the control variables are included in the model, wealth status of households did not show any significant relationship with socioemotional development of children. Education of household head did not have any significant association with child socioemotional development.
5.1 Relationship between Households’ Economic Status and Child Socioemotional Development

The first hypothesis of this study states; “Children from economically wealthier households are more likely to be socioemotionally on track”. To help address this hypothesis, the odds ratio in the multivariate model is used to interpret the relationship between households’ socioeconomic status and child’s socioemotional development. In model 1 and 2 it was found that wealth status of households had a significant association with socioemotional development of children, but this association is negative because the odds ratios of the various categories indicate that the chances of a child being socioemotionally on track reduces with increases in household wealth. When wealth status of households was modelled with all the other control predictors including the mediating variables, wealth status did not have significant influence on the socioemotional development of children. However, the odds ratios at this point indicated that a child that is born to a poor or middle wealth household increases their odds of being socioemotionally on track by 3% and 12% respectively.

Many researchers (Aughinbaugh & Gittleman, 2003; Blau, 1999; Conger et al., 2010; Duncan & Brooks-gunn, 2000; Duncan & Brooks-Gunn, 2010; Williams, 2001) have found replicative evidence that economic resources do not directly influence child development; rather, there are mediating factors that interplay between the two variables. Aughinbaugh & Gittleman (2003) for example, have argued that the effects that economic hardship has on a child’s socioemotional development is through parent-child inability to interact and through parental stress and depression due to the economic hardship and not a direct effect.

On the direct relationship between economic status and child socioemotional outcomes, Bradley & Corwyn (2002) found “substantial evidence that low-SES children more often manifest
symptoms of psychiatric disturbance and maladaptive social functioning than children from more affluent circumstances”. Their findings corroborated earlier findings by Bolger et al. (1995), Brooks-Gunn & Duncan (2000), Lahey et al. (1994) and Lahey & Waldman (2003). The findings in this study do not support the findings of Bradley & Corwyn's (2002) findings of a direct relationship and those who found intermediating influence of social relations and quality of home environment. This is because, the odds ratios of the wealth status of households showed that as wealth increases, the chances of a child becoming socioemotionally on track reduces. This is true for models 1 and 2. In model 3, children from poor and middle wealth homes were found to have greater odds of being socioemotionally on track compared to those from the poorest households.

It must be noted that, socioemotional development concerns more with the child's expression and management of emotions as well as their ability to establish positive and rewarding social relationships with others around them. This requires having a good and healthy social relation within the household. Research has shown that due to the work schedules of working parents and the exigencies of modern everyday life, busy parents are hardly at home with their children. Parents leave for work early, and come back late at the time their children are already asleep. As a result of this, working parents who invariably are in the higher wealth categories, do not have time for their children. Providing material things for children is good, and help to promote, to a greater extent, the children’s physical/health and cognitive development, but the expressions and management of emotions, and establishment of positive social relations with others requires close interpersonal interaction between parents and children and not just the provision of what money can buy.

On the other hand, poor parents tend to have time for their children because they do not have a lot of work to do. Bradley & Corwyn (2002) finding may be true in certain context, but in the context
of Ghana, the data shows a substantially higher number (78%) of children from the poorest households are socioemotionally on track compared to about 69% of children from the rich households. This supports the finding at the multivariate level that the chances of being socioemotionally on track reduces with increasing wealth of households.

Based on these findings therefore, there is no sufficient evidence from this analysis to support the hypothesis that children from economically wealthier households are more likely to be on track in their socioemotional development. We conclude, based on the interpretation of model 3 results, that as the wealth of households increases, the likelihood of children to be socioemotionally on track decreases.

5.2 Relationship between Quality of Home Environment (QHE) and Child Socioemotional Development (SED)

The second objective of the study was to investigate the association between quality of the home environment and child socioemotional development. Quality of home environment is defined in this study as the availability of playing things including toys (homemade and shop) and household objects. The second hypothesis states: “Children who play with homemade/shop toys are more likely to be socioemotionally on track compared to children who play with household objects”.

The finding in this study showed the quality of home environment to have a positive significant relationship with child socioemotional development when modelled with only the independent variable (model 2) as well as with all other variables (model 3). Model 2 analysis of the relationship between QHE and child SED produced a p-value of 0.006 and 0.001 in model 3. Household objects have a positive effect on children’s socioemotional development, as the results indicated that children are better off playing with household objects than not having any playing and
development aids at home. The odds ratio of household objects (1.81) in model 3 is 0.81 time more likely to influence children’s socioemotional development compared to no playing things at all. Playing with toys (homemade and factory manufactured) has no significant influence on socioemotional development of children. In model 2, the odds that a child will be socioemotionally on track when playing with both household objects and toys is about 25% more than not having anything to play with. In model 3 however, combining household objects and homemade toys has no significant influence on child’s socioemotional development.

The finding in this study is a reflection of the sample characteristics of the MICS survey. It is noted that majority of respondents were selected from the three regions of Northern Ghana. It is known that these regions are the most deprived in the country and affording the purchase of manufactured toys for children is not within the reach of many households. As a result, children learn to play and be content with the household objects at their disposal. Some children may not even have idea of the existence of “better” playing things apart from what they were born into, so they grow knowing only household objects and are happy playing with such. Generally, majority of the respondents were selected from rural Ghana and what said above of deprivation in northern is equally true for many rural settings across the entire country.

The quality of home environment has been widely indicated to have strong influence on child development over the years. High quality home environments have been found to correlate positively with healthy child development (Bornstein et al., 2012a; Bornstein & Putnick, 2012; Bradley & Corwyn, 2002; Bradley, Corwyn, Burchinal, Mcadoo, & Garc, 2001; Bradley & Putnick, 2012; Duncan & Brooks-Gunn, 2010). Bradley et al. (2001) and Bradley & Corwyn (2002) found that “quality of the home environment was correlated about 0.40 with…[child]
development”. The Australian Institute of Health and Welfare (2015) also supported the finding that home environment is a strong predictor of child development.

Some researchers (Aughinbaugh & Gittleman, 2003; Duncan & Brooks-gunn, 2000; Duncan & Brooks-Gunn, 2010) have sought to classify home environment as a mediating factor between economic status and child development, rather than an end in itself. Green & Lee (2009) made similar observation to the effect that learning stimulation materials and caregiver availability were critical for child development. Yunus & Dahlan (2013) have stated quite emphatically that “quality of the home environment….bears great significance in the development of children”.

The finding in this study supports the assertion that quality of home environment is a mediating variable, as well as being an independent variable capable of influencing socioemotional development of children on its own (Green & Lee, 2009; Yunus & Dahlan, 2013). This is because at the bivariate level, the quality of home environment variable was significantly associated with the dependent variable. At the multivariate level too, when other variables are added to the model, the variable was still a consistent significant positive predictor of the dependent variable in both the second and third regression models.

The finding in this study reveals that availability of household objects is an important indicator of good quality home environment in the context of Ghana. This conclusion is reached because homemade and shops toys alone have no significant influence on child socioemotional development, except when combined with household objects. The results further showed that even when toys are combined with households objects, the effect on child socioemotional development is reducing (OR = 1.25 compared to household objects (1.58). Based on the finding above therefore, the hypothesis is rejected and the conclusion is made that in Ghana, children who play
with household objects are more likely to be socioemotionally on track compared to children who play with homemade toys or toys bought from the shop.

5.3 Relationship between Social Interactions and Child Socioemotional Development

The last objective of this study was to determine the influence of social interactions within the household on the socioemotional development of children. In line with this objective, it was hypothesised that: “Children whose household members engage them in three or more social activities are more likely to be socioemotionally on track compared to those who are not engaged in social activities”. The social interaction variable is a combination of various social activities engaged by household members with children. These activities include reading books with/for child, telling stories to child, singing songs with/for child, taking child outside for outdoor activities and playing with child.

These social activities are combined and recoded as follows: “no activity with child”, “engage in one activity with child”, “engage in two activities with child” and “engage in three or more activities with child”. The social interaction variable was combined on the basis of number of activities that household members engage children because, the individual activities are not mutually exclusive. Household members can engage child in two or more different social activities. As a result, in order not to violate the mutually exclusive rule in research, the variables were categorised as indicated above.

In models 2 and 3, the social interaction variable was found to have significant relationship with child’s socioemotional development at p-values of 0.031 and 0.042 respectively. As a mediating variable between socio-economic status of households and child’s socioemotional development,
engaging children in three or more social activities on a daily basis has 32% more chances of the child developing socioemotionally well than those children who are not engaged in any social activity. Similarly, as an independent variable, social interaction within the household has 9% more influence on a children becoming socioemotionally on track compared to children who do not have proper social interaction within the home. The results further showed that engaging children in only one or two social activities has no significant influence on the child’s socioemotional development.

Evidence from literature suggests a strong association between some social relationships within the household and immediate environments such as family ties (Blau, 1999; Johnson et al., 1987; Olayemi, 2014), social support networks (Berger et al., 2010; Cohen et al., 2005), social cohesion and social exclusion (Bartolotta & Shulman, 2010; Cohen et al., 2005; NSCDC, 2004) and child development. Cohen et al. (2005) for instance, observed that children of parents who engage in outdoor activities with them or attend a parents-teachers’ association meetings at school tend to have self confidence in themselves and relate well with other children and adults easily. Bornstein et al. (2012) studied child development in developing countries and came to the conclusion on mother’s relationship with children that, there is a positive relationship between mothers who read books and played with their children, and cognitive abilities and self-confidence of children. The problem with these findings is that they are not able to demonstrate exclusively that engaging the child in one particular social activity is what accounts for the results, since the activities engaged with children cannot be mutually exclusive. This is the reason why in this study, I resort to categorising the activities as the number of activities engaged rather than the type of activity.

As the finding indicated, engaging children in many social activities on a regular basis helps the child to develop interpersonal skills and self-confidence. Engaging children in one or two activities
is not enough to derive the benefits of socioemotional development. The finding supports the hypothesis that children whose household members engage them in three or more social activities within the home environment are more likely to be socioemotionally on track compared to those who are not engaged in any social activity.

5.4 Other Determinants of Child Socioemotional Development

Apart from social interactions and the quality of home environment variables, model 3 results indicated that the chances that a child would have positive socioemotional outcomes increases by 29% when the child is left with other children in the household for more than one hour in a week, than when the child is not left with other children. The results also revealed that availability of children’s books or picture books was a strong predictor of socioemotional outcomes. Children have 75% chance of being socioemotionally on track when there are children’s books available to them compared to children who do not have these books. Stated differently, children are 1.75 times as likelihood to be socioemotionally on track when there are children’s books or picture books as those without children’s or picture books. Some demographic characteristics of the child such as age and sex, as well as region of residence were observed to have association with socioemotional development. The odds ratio produced by the regression analysis revealed that female children are 42% more likely to be socioemotionally on track compared to male children. Also, the chances that a child would be socioemotionally on track, increases by about 1% with increase in age in months.

Region of residence of the child was also found to have significant association with socioemotional development. The Central, Eastern, Northern, Upper East and Western regions were found to have significant positive association with child’s socioemotional development. The results indicated that children born in the Central region of Ghana were as 3.4 times more likely to have positive
socioemotional development outlook as those born in the Upper West region (reference category). Similarly, children born in the Northern, Upper East and Western regions are 65%, 32% and 14% more likely to be socioemotionally on track respectively, compared to those born in Upper West region. On the other hand, children born in the Eastern region are 41% less likely to be socioemotionally on track compared to those born in Upper West region. The study found no significant association between the regions of Greater Accra, Volta, Ashanti and Brong Ahafo and child socioemotional development.

The finding can be attributed to the fact that there is less economic activities in some regions of Ghana and so parents have ample time to spend with their children at home. It can also be linked to the quality of home environment analysis in section 5.2 of this chapter. The argument is made that children who play with household objects are more likely to have positive socioemotional outlook. This is attributable to the fact that more than half of the MICS sample population came from the three poorest regions of northern Ghana, so parents cannot even afford to buy shop toys for their wards, and the latter is content (or compelled by circumstances to be content) with what is available to them. Alternatively, it may be the case that household objects hold the “magic wand” to child socioemotional development and playing with such objects is most common in the poorer regions. It is therefore not surprising to have positive socioemotional development outlook mostly from poorer regions of the country. The social structure of each of the regions of Ghana is also a major factor contributing to the disparity in socioemotional development outlook of children. A family focused social structure such as the extended family systems of northern Ghana are likely to have child friendly environments favourable for positive socioemotional development, compared to the more urbanised and nuclear family settings of Greater Accra and Ashanti regions.
The larger environment and geographical location in which a child lives have indirect impact on their development outcome (Bronfenbrenner, 1979; Paquette & Ryan, 2001). The Total Environment Assessment Model for Early Child Development proposed by Siddiqi et al. (2007) also makes reference to the importance of territorial location on child development. Letourneau et al. (2013) have also observed that early development of children is largely subject to environmental factors at the regional (e.g. physical, social, political, and economic environments), national (e.g., policy and economics), and global (e.g., economic and social conditions of nations) levels”.

In conclusion, the regression analysis revealed that in the presence of other variables, the socioeconomic status of households is not a significant predictor of socioemotional outcomes of children. Instead, engaging in a number of social activities with members of the household, playing with household object and leaving a child with other children for more than an hour in a week are the major predictors of socioemotional development. Similarly, the availability of children’s or picture books, age and sex of child, and the region of residence of the household are also important predictors of socioemotional development of children in Ghana.
CHAPTER SIX

SUMMARY, RECOMMENDATIONS AND CONCLUSIONS

6.0 Introduction

This chapter summarizes the findings of the study and makes policy and future research recommendations on child socioemotional development issues based on the findings.

6.1 Summary

The study set out in chapter one to examine the influence of socioeconomic status of households, social relations and quality of home environment on the socioemotional outcomes of children in Ghana. The study made use of data from the 2011 Multiple Indicator Cluster Survey (MICS) carried out by the Ghana Statistical Service. The numerous social and personal problems such as violence, mental disorders, criminality, lawlessness, behavioural problems, depression, stress, etc that ravage individuals and our societies in general, were compelling forces behind the objective to examine the roots of these socioemotional and behavioural menaces.

In chapter two, the study reviewed past research literature on the subject of child development outcomes and explained the three major domains of child development including the cognitive, physical/health and socioemotional/behavioural domains. The third child development domain, socioemotional development which is the subject of this study, was explored in detail in this chapter. Based on past literature and the appropriateness of the theory to the study, the Ecological Systems Theory of child development propounded by Urie Bronfenbrenner in 1979 was adopted as the theoretical foundation for the study.

The third chapter began with a specification of the sample size and a description of how the MICS data was collected. The dependent and independent variables were defined in this chapter and how
they are individually measured. In addition, the chapter explained the techniques used for the data analysis, the chi-square test of association and the binary logistics regression techniques.

Outputs from the data analysis in the univariate, bivariate and multivariate levels were presented in chapter four. The analysis supported the second and third hypotheses stated in chapter one and rejected the first hypothesis. Discussion of the findings was done in chapter five with reference to the objectives of the study and past studies, which the findings supported and departed from. Recommendations are made for policy and further research in chapter six.

### 6.2 Recommendations

The findings in this study have important inferences for policy making and implementation as well as research. The study observed some relationships between wealth status of households, social interaction, home environment, age and sex of child, region of residence and other variables on the one hand, and socioemotional development of children on the other hand. Against the backdrop of these findings, recommendations are made thus;

1) As the finding suggests, it is important for members of households to engage children in more social activities on a regular basis such as taking children to outdoor programmes including children’s fun fairs, cultural and educational programmes, recreational centres, sports activities, etc in order to help them development their socioemotional skills. Playing with children is also an important activity that significantly improves the chances of children being socioemotionally on track.

2) It is also imperative for parents and caregivers to provide materials such as picture books or children’s books which enhance children’s visual impressions of the things around them and which help them appreciate their social and physical environments. Playing with household objects has significant positive effects on child socioemotional development.
Therefore, children should be allowed to play with household objects such as milk tins, rag-balls, sticks, leaves, stones, and mud, etc. Homemade and manufactured toys do not necessarily help children to develop socioemotionally, but could complement household objects in that regard.

3) Leaving a child with other children on a regular basis is crucial for the child’s socioemotional development. This has been found to have strong positive influence on social skills development, integration, self-confidence, and interpersonal relations with other children and adults.

4) Female children have been indicated to have more likelihood of being socioemotionally on track than their male counterparts under similar environmental, social, and economic conditions. It is therefore recommended that, extra attention be given to male children growing up with female children if they must be at par with the female children in the socioemotional development trajectory.

5) The findings also present some implications for further research on the subject. There is limited literature on child socioemotional development in the context of Ghana. There is the need for replication of studies on socioemotional development in order to establish the major predictors of socioemotional development of children. In addition, there is no consensus in literature about what really constitute quality of home environment, social relations, and even the components of socioeconomic status of households. Thus, there is the need for further research to establish a standardized measurement of these variables in the field of social science.

6) Lastly, but not the least, in the technologically advanced society that we find ourselves in the current social dispensation, it is important to consider developing virtual computer and
mobile games and applications that can help children to explore their social environments. Extensive work has been done in this regard on the cognitive/learning domain of child development. However, the socioemotional development domain of children has largely not benefited from the advance in modern technology. It will be interesting to explore this area further.

6.3 Limitations of the Study

The study made use of data from the 2011 MICS survey conducted by the Ghana Statistical Service. With the fast pace of social, economic and environmental changes in our societies, many conditions may have changed during the period between 2011 when the survey was carried out and the present day. Thus, things may have been different if the data was collected in real time.

Also, certain cultural, social and contextual characteristics come together to shape the developing individual. The MICS data may not have captured some important cultural specific characteristics that influence a child’s socioemotional upbringing in the context of Ghana or section of the country.

Furthermore, the sample population in MICS survey was evidently very high for some regions especially the three regions of northern Ghana compared to other regions. Similarly, the rural population was over sampled (72%), compared to urban respondents. This lack of proportionality and uniformity in sampling across regions and rural/urban dwellings could seriously compromise the outcome of the models. This limitation is important because social conditions and way of life of rural and urban Ghana can be markedly at variance.
6.4 Conclusion

The socioemotional outcomes of every individual at adult age is a culmination of the conditions under which the individual grew up. The prevailing conditions during the early years of life have lasting influences on the individual throughout their entire lifetime. For this reason, the study sought to determine the influences that socioeconomic status of households and other variables have on children’s socioemotional development. The results identified that various social, environmental variables as well as demographic characteristics of the child are the major predictors of socioemotional development. Wealth status of households influence socioemotional development of children, but this is not significantly so in the presence of other variables.

Children in Ghana largely have very positive socioemotional development outlook because of the presence of certain environmental and social factors such as family ties and the provision of essential learning and playing tools for children. The social structure of Ghana also plays some role in shaping the social and emotional development of children. The economic disadvantages of most households that deprive their children of the possession of modern playing things has not significantly affected the social and emotional development aspects of children. Rather, playing with household objects is vital for children’s social and emotional growth.

The study also underscored the importance of engaging children in social activities in order to build their self-confidence, interpersonal relations and social skills. The study recommended the development of computer based games and aids, which would allow children to have virtual and mental appreciation of their social and physical environments. The message of vital importance in this study is that socioeconomic status of households does not define the outcome of the social and emotional development of an individual. Rather, the social relations that the individual builds from birth and the home environment where the individual grows are crucial for their development.
REFERENCES


