

Breastfeeding Practices and Pupils' Adaptability Skills in Akwa Ibom North West Senatorial District

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Abstract

This study investigated the influence of breastfeeding practices on pupils' adaptability skills in Akwa Ibom North West Senatorial District. Three research questions and three null hypotheses were postulated to guide the study. Population consisted of 2,107 nursery one teachers and 12,346 pupils' parents in 183 private schools in North West Senatorial District of Akwa Ibom State. Breastfeeding Practices Questionnaire (BPQ) for mothers and Pupils' Adaptability Skills Rating Scale (PASRS) were used as the instrument for the study. The instrument validity and reliability was determined using Cronbach's Alpha statistics which yielded reliability indices of 0.76 and 0.81 respectively. Mean and standard deviation were used in answering the research questions while analysis of variance (ANOVA) was used to test the hypotheses at 0.05 level of significance. The findings showed that there is a significant mean difference in pupils' problem solving, communication, interpersonal skills based on breastfeeding practices in Akwa Ibom North West Senatorial District. Based on the findings of the study, it was recommended among others that nursing mothers attending antenatal and child care centres should be educated by nurses, midwives and other health care personnel on the need for practicing exclusive breastfeeding as it contains complex nutritional fluid and hormones for the child, which many cannot be included in mixed feeding practices.

Keywords: Breastfeeding Practices, Adaptability Skills, Problem Solving Skills, Communication Skills and Interpersonal Skills.

Introduction

Education is defined as the wise, hopeful and respectful cultivation of learning undertaken in the belief that all should have the chance to share in life. Education is an indispensable tool in nations building. It is a process of systematic training and instruction designed to transmit knowledge and acquisition of skills, potentials and abilities which will enable an individual to contribute efficiently to the growth and development of his society and nations. It involves all around development of an individually physically, socially, morally, intellectually and mentally (Osakwe, 2006). Education of an individual is in stages, the first and very important stage is the early childhood stage.

Early childhood is a time of bridge building. It is a time in a child's life when bridges are built between the shelter of home and the demands of the school; between play with a few neighbourhood friends and relationship with many children. It is that period of human development which falls between births to eight years (birth-8 years). The time from birth to eight years is a critical period in the development of many foundational skills in all areas of development. This is the time when environmental enrichment or deprivation makes its

greatest impact. Since development is proceeding at a very fast rate, unfavourable experiences such as lack of adequate food, health care, nurturance or stimulation, unhealthy living conditions and exploitative working conditions hinder development to a considerable extent, whereas favourable conditions foster development. The effect is long-lasting since the foundation of development in later years is laid at this age. It must be appreciated that development is not simply the result of mechanical acts of feeding and physical care, but rather of a feeling of total well-being that arises from growing up in a healthy atmosphere with love, warmth and opportunities for learning.

Adaptability skills are skill sets that encompass a person's ability to adjust to changes in their environment. Adaptability refers to cognitive, behavioural, and emotional adjustments that individuals make to manage changing, novel, and uncertain situations and events (Martin, *et al.*, 2012, 2013). It is pupils' ability to adapt to a constantly changing teaching/learning environment. This is known as the tripartite model of adaptability and was recently developed by Martin, Nejad *et al.* (2012, 2013 and 2015). Cognitive adjustment refers to modifying one's thoughts, behavioural adjustment refers to modifying one's actions, and emotional adjustment refers to modifying one's affective responses, all to manage changing, new, or uncertain events (Martin, Nejad *et al.*, 2012, 2013). Adaptability is an important predictor of child well-being. Adaptability refers to a child's tendency to adapt to changes, explore new places and situations, recover from negative emotions, and exhibit positive emotions when interacting with others (Reynolds and Kamphaus, 2002). Adaptability is often measured as a component of social skills, leadership skills, study skills, functional communication skills, and activities of daily living on measures of childhood behavioural, social, and emotional functioning such as the Behavioural Assessment System for Children (BASC) (Reynolds and Kamphaus, 2002). Specifically, adaptability skills can be defined as the ability of an individual to effectively anticipate, identify and interpret unexpected changes, and timely respond to those changes in such a manner that optimal performance is achieved (Reynolds & Kamphaus, 2002).

Problem-solving, problems and conflict are often a part of social interactions. Someone may not agree with you, get angry at something you say, insult you or become aggressive toward you. How you react to these conflicts depends on how good your problem solving skills are. Children who are not good social problem solvers have trouble settling conflicts and disagreements. They get mad easily and may not speak to someone because they are mad at them. It has to be "their way or the highway". They always want to win no matter what the cost, even if that means losing a friend. It often also means making an enemy, which creates additional social problems. Conflicts cannot be avoided and are often necessary to "clear the air". Turning a conflict from a "win-lose" situation to a "win-win" situation is the best way to resolve conflict. This requires negotiation and compromise, give and take, but results in a situation that all parties can live with and helps maintain friendships (Oddy, 2003). Meesha, Ghazala & Sumera (2017) conducted a research on the effect of breastfeeding on the cognitive and language development of children less than 3

years of age. The results revealed that children breastfed for more than 12 months were at an advantage for cognitive and language development. Also Okeh (2010) found that exclusive breastfeeding was found to be dependent on a woman's occupation; however the study revealed from its analysis that there was a significant relationship between a mothers' decision to feed her child with breast milk as well as semi solid food and those who exclusive breastfeeding was found to be dependent on a woman's occupation; however at the same time the study revealed from its analysis that there was a significant relationship between a mothers' decision to feed her child with breast milk as well as semi solid food and those who chose to breastfeed exclusively.

Being adaptable can depend on how effectively you communicate with others, communication skills are important to everyone - they are how we give and receive information and convey our ideas and opinions with those around us. To Curby, Brock & Hamre, (2013), communication comes in many forms: verbal (sounds, language, and tone of voice), aural (listening and hearing), non-verbal (facial expressions, body language, and posture), written (journals, emails, blogs, and text messages) and visual (signs, symbols, and pictures). It is important to develop a variety of skills for both communicating to others and learning how to interpret the information received from others. Knowing our audience and understanding how they need to receive information is equally important as knowing ourselves. Communication skills are necessary for the development of self-advocacy and self-determination, important skills for lifelong success. Dee *et al.* (2007) carried out a research on associations between breastfeeding practices and young children's language and motor skill development. They found that mothers who initiated breastfeeding were less likely than mothers of never-breastfed children to be concerned a lot about their child's expressive and receptive language development and fine and general motor skills.

Adapting to change can also rely on interpersonal skills. Interpersonal skill refers to the ability to put up a warm personality that makes you approachable, easy to relate with and without any hostility. Aside from being warm and devoid of hostility, a friendly person is someone who has a great level of respect for others. To be friendly is being able to show patience and care as well as spending time with people. Friendliness is a skill that is of great importance in the life of an individual especially children. It reduces fight and strife. Friendly people are good to be around, they are sociable, pleasant companions who always knows how to say things the right way. There are natural facilitators in groups, making the social round move more smoothly (Moore, 2005). Bryant *et al.* (2009) found a strong relation between early knowledge of nursery rhymes and success in reading and spelling over the next three years even after differences in social background, I.Q and the children's phonological skills at the start of the project are taken into account. Oddy (2003) also found social skill instruction was an effective strategy to develop appropriate sport and game behaviour and decrease inappropriate ones for students with EBD in physical education.

Breast-feeding is an important resource. It is one simple practice that provides food, health and care simultaneously for the child. It is a natural way of feeding the infant in all tradition

and has contributed to the healthy survival of children through the ages (Armstrong, 2015). Breastfeeding has been positively associated with child's total development (Koren *et al.*, 2013). Breastfeeding is described by World Health Organisation (2003) as a natural way of feeding an infant the breast milk from the mother. It is a cost-effective way of providing ideal nourishment for the healthy growth and development of infants. It is also a natural resource that has a major impact on child's health, growth and development. Breastfeeding has become adapted to the need and way of life of different mammalian species particularly to the maturity of the new born, special nutritional requirement, protection, bonding, sensory stimulation and other various biological considerations (UNICEF, 2009). Researchers have explained that the composition of breast milk and the length of lactation of different species appear to have been modified and adapted to the need of that particular creature (Cameroon & Hofvander, 2003). Due to the ample benefits of breastfeeding to mother and child, WHO (2003) recommended that every child should receive exclusive breastfeeding (optimal breastfeeding) from birth to six months of life.

A meta-analysis by Angelsen (2001) concluded that breast feeding is associated with significantly higher scores for cognitive development than was formula feeding, after adjustment for confounding factors.

Psychosocial Theory by Erik Erickson, Psychosexual Theory by Sigmund Freud and Ethological Theory by Bowlby and Ainsworth served as a foundation to this study. These theories stress the importance of giving proper attention to the child especially at the infancy stage. This is because infancy is a time of extreme dependence on adult. It is the period when parents or other caregivers should give absolute care to the child, because lack of adequate care in infancy can affect a person's later life. The need for reliability and consistency of the parents in the provision of physical and emotional comfort of the child serve the major base of Erickson's psychosocial theory. It is also on that ground that this study focuses. This study therefore bases on this theory in investigating the reliability and consistency of young parents in providing care for the children. The psychosocial theory focused on the oral and anal stages of development during which feeding and toilet training are of paramount importance to a child. Fixation which results to improper resolution of these early years conflicts affects the adult life. The emphasis is on the strictness or over indulgence of young parents in handling the feeding and toileting aspect of the child's life. Hence, this theory guides the study on the way and manner parents provide the basic needs of children, particularly as it has to do with breastfeeding. The theory of etiology placed emphasis on how care given or denied of a child in infancy stage affects both the child's self-image and his or her view of the world at large. This theory influences the need of the study to focus on the infancy stage of child development and the care experiences the infant gets from the parents. Moreover, these theories emphasize on the need to give proper care of the children especially at infancy stage. They believed that this care is more important at infancy than later stage of life. Parent who typically responds promptly to an infant distress and provides responsive, consistent care in infancy is vital for human adaptation.

The conceptual framework looks at breastfeeding, benefits of breastfeeding to mother and child, adaptability, problem solving skills, communication skills and interpersonal skills. However, even though there are works on breastfeeding none of those works to the best of the researcher's knowledge has been done on breastfeeding and adaptability skills of children in the study area. Thus, this study tends to fill the gap in the available body of research information by investigating breastfeeding practices and adaptability skills of children in Akwa Ibom North West Senatorial District.

Statement of the Problem

Early childhood is the most important period in the cognitive development of the child. Children through interactions with their parents, siblings, and adults acquire skills especially by way of imitation through feeding, folklore, tongue twisters, riddles and jokes, proverbs among others. These experiences with their immediate environment no doubt help them to socialize, learn their language, become creative and acquire problem solving skills. Therefore, the need for strong and warm relationship between a mother and child especially with regard to breastfeeding habits. Breastfeeding is the feeding of an infant or young child with milk from the mothers' breast. Babies have a sucking reflex that enables them to suck and swallow milk. With some exceptions human breast milk is the best source of nourishment for infants (Sankar *et al*, 2015). Milk from mothers provides all the nutrients that a baby needs as well as that substance that promotes growth and help to fight infection. Breastfeeding is very useful in the growth and development of children. Breastfeeding enhances various skills which help to arouse their interest and builds up the motivation to learn in children.

However, observations have shown that most preschoolers in Akwa Ibom North West Senatorial District lack behind in terms of adaptability skills. This has no doubt resulted to either wrong effects or unintended consequences. Hence, it is in this regard that parents and caregivers should become acquainted with the specific developmental outcomes associated with the breastfeeding practices which has multiple benefits and can be a valuable in learning and development from birth through the school years. The problem of the study therefore is: could the influence of breastfeeding on the adaptability skills of preschool children be determined in Akwa Ibom North West Senatorial District?

Objectives

The study investigated the influence of breastfeeding practices on pupils' adaptability skills in Akwa Ibom North West Senatorial District. Specifically, the study sought to:

- i. Ascertain the influence of breastfeeding practices on pupils' problem solving skills.
- ii. Determine the influence of breastfeeding practices on pupils' communication.
- iii. Ascertain the influence of breastfeeding practices on pupils' interpersonal skills.

Research Questions

This study answered the following research questions:

- i. What is the influence of breastfeeding practices on pupils' problem solving skills practices?
- ii. What is the influence of breastfeeding practices on pupils' communication skills?
- iii. What is the influence of breastfeeding practices on pupils' interpersonal skills?

Hypotheses

The following null hypotheses were formulated to guide this study and were tested at 0.05 level of significance:

- Ho₁:** There is no significant influence of breastfeeding practices on pupils' problem solving skills.
- Ho₂:** There is no significant influence of breastfeeding practices on pupils' communication skills.
- Ho₃:** There is no significant influence of breastfeeding practices on pupils' interpersonal skills.

Research Method

The ex-post-facto (after the fact) research design was adopted for the study. The study was carried out in Akwa Ibom North West Senatorial District. The population of the study consisted of 2,107 nursery one teachers and 12,346 pupils' parents in 183 private schools in North West Senatorial District of Akwa Ibom State (MOE, 2019). A sample size of 1446 respondents consisted of 211 nursery one teachers and 1235 pupils' parents representing 10% of the total population of nursery two teachers and pupils' parents respectively was used for the study. Two researcher-made instruments were used for data collection known as: Breastfeeding Practices Questionnaire (BPQ) for mothers and Pupils' Adaptability Skills Rating Scale (PASRS) for teachers. Face validity was established for the Breastfeeding Practices Questionnaire (BPQ) and Pupils' Adaptability Skills Rating Scale (PASRS) by experts. Cronbach's Alpha statistical analysis was used to determine the internal consistency of the instruments. Breastfeeding Practices Questionnaire (BPQ) and Pupils' Adaptability Skills Rating Scale (PASRS) which yielded reliability coefficient indices of .76 and .81 respectively. The instruments were administered on the respondents directly with the help of research assistants who were trained on the modes of how the instruments were to be filled. The completed copies of the instrument were retrieved on the spot from the respondents on each day of visit except so requested by the respondents then retrieval was deferred to a suitable date. The data collected were coded using SPSS (1999) Version 20 Software and analysed using mean and standard deviation for answering research questions while analysis of variance (ANOVA) was used to test all the hypotheses at 0.05 level of significance.

Results

Research Question One

What is the influence of breastfeeding practices on pupils' problem solving skills?

Table 1: Mean and standard deviation on the influence of breastfeeding practices on pupils' problem solving skills

Adaptability Skills	Breastfeeding Practices	n	$\bar{X}$	SD	Rank
Problem solving skills	Less than 6 months	405	11.59	2.83	4
	Greater than 6 months	246	12.27	2.48	3
	Less than 12 months	72	12.52	2.74	2
	Greater than 12 months	723	12.92	2.77	1

The above Table 1 indicates on the extent breastfeeding practices influence pupils' problem solving skills in Akwa Ibom North West Senatorial District. The mean of pupils' problem solving skills who were breastfed less than 6 months is 11.59 with a standard deviation of 2.83, mean of those breastfed greater than 6 months is 12.27 with a standard deviation of 2.48, breastfed less than 12 months is 12.52 with a standard deviation of 2.74 and the mean of those breastfed greater than 12 months is 12.92 with a standard deviation of 2.77. The result indicates that pupils who were breastfed greater than 12 months had the highest extent of influence on pupils' problem solving skills followed by those who were breastfed less than 12 months, greater than 6 months, and lastly those who were breastfed less than 6 months. The result also showed that pupils' problem solving skills in Akwa Ibom North East Senatorial District differs based on breastfeeding practices.

Research Question Two

What is the influence of breastfeeding practices on pupils' communication skills?

Table 2: Mean and standard deviation on the influence of breastfeeding practices on pupils' communication skills

Adaptability Skills	Breastfeeding Practices	n	$\bar{X}$	SD	Rank
Communication skills	Less than 6 months	405	11.59	2.84	4
	Greater than 6 months	246	12.25	2.51	3
	Less than 12 months	72	12.45	2.69	2
	Greater than 12 months	723	12.93	2.77	1

The above Table 2 indicates on the extent breastfeeding practices influence pupils' communication skills in Akwa Ibom North West Senatorial District. The mean of pupils' communication skills who were breastfed less than 6 months is 11.59 with a standard deviation of 2.84, mean of those breastfed greater than 6 months is 12.25 with a standard deviation of 2.51, breastfed less than 12 months is 12.45 with a standard deviation of 2.69

and the mean of those breastfed greater than 12 months is 12.93 with a standard deviation of 2.77. The result indicates that pupils who were breastfed greater than 12 months had the highest extent of influence on pupils' communication skills followed by those who were breastfed less than 12 months, greater than 6 months, and lastly those who were breastfed less than 6 months. The result also showed that pupils' communication skills in Akwa Ibom North East Senatorial District differs based on breastfeeding practices.

Research Question Three

What is the influence of breastfeeding practices on pupils' interpersonal skills?

Table 3: Mean and standard deviation on the influence of breastfeeding practices pupils' interpersonal skills

Adaptability Skills	Breastfeeding Practices	n	$\bar{X}$	SD	Rank
Interpersonal skills	Less than 6 months	405	11.74	2.75	4
	Greater than 6 months	246	12.32	2.64	3
	Less than 12 months	72	13.06	2.66	2
	Greater than 12 months	723	12.76	2.80	1

The above Table 3 indicates on the extent breastfeeding practices influence pupils' interpersonal skills in Akwa Ibom North West Senatorial District. The mean of pupils' interpersonal skills who were breastfed less than 6 months is 11.74 with a standard deviation of 2.75, mean of those breastfed greater than 6 months is 12.32 with a standard deviation of 2.64, breastfed less than 12 months is 13.06 with a standard deviation of 2.66 and the mean of those breastfed greater than 12 months is 12.76 with a standard deviation of 2.80. The result indicates that pupils who were breastfed less than 12 months had the highest extent of influence on pupils' interpersonal skills followed by those who were breastfed greater than 12 months, greater than 6 months, and lastly those who were breastfed less than 6 months. The result also showed that pupils' interpersonal skills in Akwa Ibom North East Senatorial District differ based on breastfeeding practices.

Hypothesis One

There is no significant influence of breastfeeding practices on pupils' problem solving skills.

Table 4: Analysis of variance (ANOVA) of influence of breastfeeding practices on pupils' problem solving skills

Source	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	465.766	3	155.255	20.659	-.000
Within Groups	10836.588	1442	7.515		
Total	11302.354	1445			

The result in Table 4 shows that an F-ratio of 20.659 with an associated probability value of 0.000 was obtained with regards to the influence of breastfeeding practices on pupils' problem solving skills. Since the associated probability of 0.000 was less than 0.05, the null hypothesis one was rejected. This implies that there is a significant influence of breastfeeding practices on pupils' problem solving skills.

Hypothesis Two

There is no significant influence of breastfeeding practices on communication skills.

Table 5: Analysis of variance (ANOVA) of influence of breastfeeding practices on communication skills

Source	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	477.094	3	159.031	21.087	.000
Within Groups	10875.100	1442	7.542		
Total	11352.194	1445			

The result in Table 8 shows that an F-ratio of 21.087 with an associated probability value of 0.000 was obtained with regards to the influence of breastfeeding practices on communication skills. Since the associated probability of 0.000 was less than 0.05, the null hypothesis two was rejected. This implies that there is a significant influence of breastfeeding practices on communication skills.

Hypothesis Three

There is no significant influence of breastfeeding practices on pupils' interpersonal skills.

Table 6: Analysis of variance (ANOVA) of influence of breastfeeding practices on pupils' interpersonal skills

Source	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	300.479	3	100.160	13.164	.000
Within Groups	10971.391	1442	7.608		
Total	11271.871	1445			

The result in Table 6 shows that an F-ratio of 13.164 with an associated probability value of 0.000 was obtained with regards to the influence of breastfeeding practices on pupils' interpersonal skills. Since the associated probability of 0.000 was less than 0.05, the null hypothesis three was rejected. This implies that there is a significant influence of breastfeeding practices on pupils' interpersonal skills.

Discussion of Findings

The hypothesis one showed that there is significant influence of breastfeeding practices on pupils' problem solving skills. This result is possible because Table 1 indicated variance on pupils' problem solving skills based on breastfeeding practices. This finding agrees with Meesha, Ghazala, & Sumera (2017) on the effect of breastfeeding on the cognitive and language development of children under 3 years of age. The results revealed that children breastfed for more than 12 months were at an advantage for cognitive and language development. The finding of this study is also in line with Okeh (2010) who found that exclusive breastfeeding was found to be dependent on a woman's occupation; however the study revealed from its analysis that there was a significant relationship between a mothers' decision to feed her child with breast milk as well as semi solid food and those who exclusive breastfeeding was found to be dependent on a woman's occupation; however at the same time the study revealed from its analysis that there was a significant relationship between a mothers' decision to feed her child with breast milk as well as semi solid food and those who chose to breastfeed exclusively.

The hypothesis two showed that there is a significant influence of breastfeeding practices on pupils' communication skills. This finding is so because Table 2 showed that pupils' communication skills differ based on breastfeeding practices. This finding is in accordance with Dee *et al.* (2007) who did a research on associations between breastfeeding practices and young children's language and motor skill development. They found that mothers who initiated breastfeeding were less likely than mothers of never-breastfed children to be concerned a lot about their child's expressive and receptive language development and fine and general motor skills. Mothers of children breastfed 3 to 5.9 months were less likely than mothers of never-breastfed children to be concerned a lot about their child's expressive and receptive language and fine and general motor skills. As with all cross-sectional data, results should be interpreted with caution. This finding suggests breastfeeding may protect against delays in young children's language and motor skill development.

The hypothesis three revealed that there is a significant influence of breastfeeding practices on pupils' interpersonal skills based on breastfeeding practices. This finding is so because Table 3 showed that pupils' interpersonal skills differ based on breastfeeding practices. This finding is in agreement with Bryant *et al.* (2009) found a strong relation between early knowledge of nursery rhymes and success in reading and spelling over the next three years even after differences in social background, I.Q and the children's phonological skills at the start of the project are taken into account. Amaury (2007) also found social skill instruction was an effective strategy to develop appropriate sport and game behaviour and decrease inappropriate ones for students with EBD in physical education.

Conclusion

In view of the major findings, it can be concluded that, there were indeed breastfeeding practices has an influence on pupils' adaptability skills. However, pupils' adaptability skills differ based on breastfeeding practice. The study concluded that the protective effect of

breastfeeding on the attainment of problem solving, communication and interpersonal skills were attributed to some component(s) of breast milk or features of breast feeding.

Recommendations

The following recommendations were made:

- i. Nursing mothers attending antenatal and child care centres should be educated by nurses, midwives and other health care personnel on the need for practicing exclusive breastfeeding as it contains complex nutritional fluid and hormones for the child, which many cannot be included in mixed feeding practices.
- ii. Support should be provided by the healthcare personnel, nurses, midwives on the benefits of exclusive breastfeeding at place of work.
- iii. Family life educators should often organize frequent seminars and workshops for educated mothers to create awareness and practices of exclusive breastfeeding.

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