

**ACCEPTABILITY OF SELF-DESIGNED AND CONSTRUCTED GARMENTS
FOR BREAST FEEDING MOTHERS IN TARABA STATE**

BY

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(M.ED/EDUC/47946/05-06)**

**A THESIS SUBMITTED TO THE POST GRADUATE SCHOOL OF STUDIES,
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DECLARATION

I, ELIJAH, RAHABA AKOMBO declare that this thesis entitled: “Acceptability self-designed and constructed garments for convenient breastfeeding among women in Taraba State” is the outcome and recording my research work, and has not been presented in any form for the award of a higher degree. The information derived from the literature has been duly acknowledged in the text and a list of references provided.

Name of Student

Signature

Date

CERTIFICATION

The Thesis titled: “Acceptability of Self-Designed and Constructed Garments for Convenient Breastfeeding among Women in Taraba State” by Elijah, Rahaba Akombo, meets the regulations governing the award of the degree of Masters in Education (M.Ed) Vocational Technical Education, Home Economics (Clothing and Textiles) of Ahmadu Bello University, Zaria and is approved for its contribution to knowledge and literary presentation

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DEDICATION

This work is dedicated to the Almighty God, the beginning and the finisher of my faith, for His unfailing love, divine protection, favour and for helping me to complete this study.

May His Holy name be praised and exalted forever. Amen.

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ABSTRACT

The study on the “acceptability of self-designed and constructed garments for breastfeeding mothers in Taraba was conducted to determine the level of desirability, acceptability, comfort as well as the uniqueness of the garments among breastfeeding mothers. The study adopted the survey and studio research for both testing of the structured instruments (questionnaires) alongside the five self-designed and constructed specimen garments to collate the data needed for analysis. The weighted mean value of 3.5 was used as a criterion for accepting the value and vice versa as presented descriptively with frequency and percentage. Three null hypotheses were formulated to test the level of significance of the research, using Analysis of Variance (ANOVA) set at Alpha value of 0.5. The three hypothesis tested had to following result, (i) $F(1,2)=57.608$, $P=0.000$, (ii) $F(5,94)=86.898$, $P=0.000$ and (iii) $F(3,96)=91.349$ $P=0.000$. Based on these results, the hypotheses were all rejected and the conclusion that there is a significant difference among the variable tested. The findings revealed that the designed and constructed garments were highly accepted by breastfeeding mothers as meeting the level of uniqueness, comfortable, privacy and fitting necessary for their usage. Base on this, the study recommended that the production of this nature of clothing should take into consideration variables such as uniqueness, comfort and privacy in the designing and construction of specific garment for breastfeeding mothers. The study suggest that a further research be carried out among working class mothers.

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Operational Definition of Terms

- Buba - A loosely free garment with long sleeve
- Notions - Notions are small items that complete a garment.
- Breast Access - Space where breast can be remove to for breast feeding purpose.
- Fitted - Garment that shows the fingers contours
- Free garment - Loosely garment on the body
- Lining - Constructed separately from the outer garment and their joined at one or more major seems.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Human beings have always been thinking of how to protect their nakedness, to be comfortable and feel good. From pre-historic time to date, clothing, being one of the basic needs of mankind, has undergone a lot of revolutions; from the using of leaves and animal skin as covers, to weaving of cellulose fibres into fabrics. In the primitive time, people only thought of covering their private part, mostly from the waist to the knee (Nelson (2002) and Cox and Dittmar (1995). The top which is the bodice is not given much attention.

Clothing moved from the purpose of covering and protection to such things as priesthood, status symbolism and uniforms for identity. Weber (1990) asserted that clothing is for modesty, psychological desire for adornment for either status, ceremonial use, group identity, sex attraction or self-expression. Thus, as knowledge advanced, clothing moved from just to cover nakedness to other functions in life such as weather conditions, occupations and recreations among others. There are now clothes for specific functions such as rain coat, to protect against rain, sweaters and cardigan to protect against cold, maternity dresses for pregnant women's comfort and ease. Clothing is also for ceremonies like party wedding and traditional dances. Others include clothing to protect against bullets insect and bite. Just as pregnant women have their special garment to accommodate the bulging stomach, to make them comfortable, so also the breastfeeding mothers. There is need for them to have their own special garments at this period to make them comfortable; to accommodate the increase in size of their breast and to conveniently breastfeed their babies at anytime and anywhere.

Breastfeeding is a process that is undertaken by every nursing mother, except under serious ill health. Ratner (2003) explained that breastfeeding is the practice of a woman feeding an infant with milk from her mammary gland usually from the nipples. It usually takes place after delivery. It is a time of mother - baby personal interaction. Therefore, women in this stage need specially designed garment to enable them perform this function effectively.

Erwin (2006) said, design is a plan for the construction of any object as in architectural blue print, circuit diagrams and sewing patterns. Jones and Peter (2007) in their own work added, “design is a change in contour into fabric by the use of darts, gathers, or other means of controlling fullness in order to make a flat surface form to the body bulges, hollows and planes”. Kantiok (2008) emphasized that “design in clothing is the concept of selecting, arranging or ordering ideas as well as the tangible components of our individual world which is usually translated in style which is a skeletal three dimensional form”, construction.

Construction is to make or produce something. Herbert (2008) emphasised that construction in clothing is the putting together the different parts of the pattern to bring out desired garments, the garment that serve the functions for which the designer had in mind.

Farlex (2008), defined garment as any article of clothing, as a coat, a gown, a blouse or a shirt. Dikko (2006) further explained that garments are the clothing articles that make up the outer garments. They are those seen by people after a person has finished dressing. They include, among others skirts, blouses, wrappers, long gown, short gowns, kaftans, trousers, T-shirts, shirts, evening gowns and so on. There are others that are known as foundation garments. They

are those that are worn next to the skin. They include things like pants, brazier, vests full slip (shimi) waist slips, long slips, girdles.

The change in the social and public role of women has created the need to produce special clothing outfits, particularly for nursing mothers. The first of these outfits was mother care brassieres for the convenience of mothers caring for their babies. These brassieres alone could not, however, solve the problem of nursing mothers because it is among the under wears. This called for the need for suitable garment. Andrew (2002) is of the opinion that if a mother will breast feed her baby, her clothing have some special notions or features that will enable her breast feed easily without interruption.

Inspite of the number of revolutions clothing has undergone to take care of numerous human functions, little attention has been paid on the area of producing suitable dresses for nursing mothers. This underscores the need to carry out a study on this important aspect of clothing, hence, the purpose for this research work.

The foregoing analysis points to the fact that to dress appropriately is significant, because dressing tells what a person is, where he/she comes from, the occupation and even the status in the society. Therefore, to develop and construct suitable garment for breastfeeding mothers is important.

1.2 Statement of the Problem

The researcher has over the years keenly observed the difficulties faced by breastfeeding mothers in their efforts to breastfeed their babies, particularly during public gatherings like weddings, naming ceremonies, political meetings, workshops, seminars, church worships, and crusades.

The researcher observed that the breastfeeding mothers have to lift up their blouses in an attempt to have access to their breasts for breastfeeding. In this way they expose some parts of their bodies, like the breast, chest and tummy, which are forbidden by some cultures and religions to be exposed in public. Campbell (2004) and Patentscope (2006) Stressed that One of the most stressful challenges facing new mothers is breastfeeding their baby. Many new mothers are reluctant to go out in public because they will need to breastfeed their babies. Also, the difficulties and inconveniences of uneasy access to the breast and the consciousness of some basic cultural and religious norms, cause many mothers not to feed their babies at appropriate times, especially during the public occasions. More so, babies cry so much before they can have access to the breast.

These difficulties negatively affect incessant breastfeeding. The breast milk is very crucial to early positive physical development of the baby. UNICEF baby friendly programme which emphasized exclusive breast feeding for the first six months of birth strongly stressed the importance of the breast milk to the babies. The researcher therefore hopes that UNICEF programme of Exclusive Breast Feeding (EBF) has to be promoted by the clothing industry by providing suitable garments for breastfeeding mothers. Invariably, if suitable garments are developed, this very important mother-baby union, through the breast, can be observed unhindered at all times, and even in all occasions. The researcher is using the Nigerian women styles of garment to design and construct breastfeeding garments with the same materials.

1.3 Objectives of the Study

The main objective of the study is to determine the level of acceptability of self designed and constructed garments among breastfeeding women in Taraba State.

The specific objectives are:

1. To determine the unique features of the designed and constructed garments used by breastfeeding mothers in Taraba State.
2. To ascertain the acceptability of designed constructed garments among breastfeeding women.
3. To determine the desirable features of the garments for comfortable breastfeeding mothers in Taraba State.

1.4 Research Questions

1. What are the unique features of garments used by breastfeeding mothers in Taraba State?
2. What is the level of acceptability and privacy of the features available in garments used by breastfeeding mothers in Taraba State?
3. What are the desirable features of garment for comfortable breastfeeding mothers in Taraba State?

1.5 Research Hypotheses

1. There is no significant difference between respondents views on the uniqueness of garments used by mothers in Taraba State and their age difference.
2. There is no significant difference between respondents' views on acceptability of the designed and constructed garments for breastfeeding among motehrs in Taraba State, and its privacy.
3. There is no significant difference between the respondents' views on the designed and constructed of garments for comfortable breasting by mothers and their occupational statuses.

1.6 Significance of the Study

The outcome of this study will be beneficial to breastfeeding mothers in Taraba State who would be able to breastfeed their babies anywhere and anytime without reservation. They will no longer be conscious of the people around them and deny the babies food when he/she needs to eat. Shree (2008). “Most mums are very conscious about nursing their baby in public views. They are worried about unintentional exposure and rely on feeding bottle when they are away from home”. It will enable the breastfeeding women in Taraba State to accept public functions when breastfeeding. They will feel stylish, confident and comfortable at all times. The feeling of not belonging will be a thing of the past. Gough (2008) explained, breastfeeding mothers no longer need to sacrifice styles or fashions thank to an exclusive new range of contemporary nursing wear”. The fear of unconscious exposure in public will no longer be there. Finally, Nigerian breastfeeding mothers will be aware of varieties of breastfeeding garments and make their own wardrobe.

1.7 Assumptions of the Study

The following assumptions are made for the study:

1. Women are not comfortable in breastfeeding their babies in public.
2. Specially designed garments can make breastfeeding women to breastfeed their babies conveniently.

1.8 Delimitation of the Study

This research work is delimited to breastfeeding women who are employed in the four tertiary institutions in Taraba State.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This chapter presented under the following sub-headings:

- 2.1 Conceptual Framework
 - 2.1.1 Concept of Clothing
 - 2.1.2 Design
- 2.2 Policies to Enhance Uninterrupted Breastfeeding Process
- 2.3 Clothing and Breastfeeding
- 2.4 History of Clothing
- 2.5 Relevance and Functions of Clothing During Breastfeeding
- 2.6 Maternity Garments
- 2.7 Clothing pattern design and construction
- 2.8 Notions
- 2.9 Review of Empirical Studies on Breast Feeding Mothers' Wears.
- 2.10 Summary of Literature Reviewed

2.1 Conceptual Framework

2.1.1 Concept of Clothing

Clothing refers to any covering for the human body. The wearing of clothing is exclusively a human characteristic and a feature of most human society. Fairt and Hollies (2001) said that the amount and type of clothing worn depends on functional considerations such as a need for warmth, or protection from the elements and social considerations. In some situations, the minimum amount of clothing is covering of persons' genitals, while in some other it may be much more. Fairt and Hollies (2001) the primary purposes of clothing hinge on protection from

elements, enhancement of safety during hazardous activities such as hackling and cooking as well as producing a barrier between body and the environment. Bane (1994) further emphasised that clothes provide a hygienic barrier, keeping toxins away from the body and limiting the transmission of germs.

According to Hollies and Goldman (2004), clothing performs a range of social and cultural functions such as individual, occupational and sexual differentiation and social status. A uniform, for example, may identify civil authorities such as police and military personnel, or marriages identify teams, group or political affiliations. Okeke (2009) supported by saying, clothing in many societies reflect standard of modesty, religion, gender and social status. Clothing may function as an expression of personal style or taste.

2.1.2 Concept of Design

Oguntona (1997) defined design as “a deliberate well considered plan for creating something beautiful. Although every person is a potential designer to be excellent, one learns to create beauty through order and harmony”. There are identified elements of design which designers work with. The elements are lines, space, texture and colour. These elements are not used in isolation from one another, but combined in useful and appropriate ways to produce interest. Chang (2007) stressed that these elements often work together, not separately. Akeredolu (2007) further explained that structural design includes the overall design of a garment, its outline, shape or silhouette. This is to say all those lines and details involved in assembling the sections the garments together, such as seams, darts, tucks and pleats, when put together, they add decorative qualities to the garment. This is regarded as structural decorative, especially where they are emphasized by a line of top stitching, as on a welt seam or an edge. Further emphasize can be

given when contrasting colours are introduced. Decorative design refers to decoration applied to a garment. It is not an integral part of the structure. Applied decoration may include various types of trims, as braids, embroidery, buttons that do not fasten, and tucked on bows. Unless these properly related to structural design, the effect may be displeasing.

2.2 Policies to Enhance Uninterrupted Breast Feeding Process

Apart from the traditional societies, modern societies, both local and international, have identified and emphasized the crucial role mothers have to play in the early physical development of the child. The inclusion of maternity leave in the public service in countries across the globe is an attestation to this fact. In fact, countries like China and India that face the threat of overpopulation withdraw maternity leave or special privileges from women who have given birth to more than two children.

In Nigeria, the situation is not different Adamu (2007) argued that there is special provision for maternity leave in the civil service system. This is an official policy to give nursing mothers special concession to enhance adequate care for their babies. Apart from being a policy to provide adequate rest for the mother, in view of the nine months stress gone through, a more important consideration is given for the mother to stay close to the baby to supply the developmental needs of the baby, which breast milk is the most paramount. For instance, the Federal Republic of Nigeria Civil Service Rule stated in the following sections of chapter 3, thus;

- (a) 03301** (maternity leave) A female staff who is pregnant, is entitled to 12 weeks maternity leave at a stretch with full pay.
- (b) 03302** (postponement of disciplinary proceedings). Any disciplinary proceedings against the female staff which might otherwise have been taken during the period of her

maternity leave shall be postponed until her maternity leave has expired. Such postponement, however shall not, in any way, prejudice the proceeding against her.

- (c) 0335** (Time off for nursing mothers) Any female civil servant who is nursing a child shall be an hour off duty every day; this facility should be granted up to a maximum period of six months from the date she resumes duty.

Apart from the above special concessions accorded to nursing mothers in the above clauses in the civil service code, the mother is allowed to carry her baby to her place of work after the stipulated 12 weeks maternity leave. The essence of this further concession is to ensure that the baby is not only properly taken care of by the mother, but is also properly fed as, and when demanded. Jones and Green (1996) referred to this as "demand feeding" which makes a baby feed only at special times.

UNICEF has set in to re-enforce and promote uninterrupted breast feeding by nursing mothers through the Exclusive Breast Feeding or Baby Friendly Programme. Jones and Green (1996) and Murphy and John (1998) summarized the main essence of the Exclusive Breast Feeding through the baby friendly Programme thus; There is no need for a mother and baby to rest separately after a normal delivery. She should have the baby with her, in her bed or a small cot beside her bed. This is called room-in or bedding-in. The mother can respond to the baby from the beginning. She can breast feed him/her and clean him/her wherever it's necessary and hold him/her wherever she wants to. This results, also, from the importance of breast milk to the baby. Shree (2008) and WHO (1989) emphasized "breast milk is the ideal food you can give your baby, as it provides all essential nutrients in the right quantity, boosts your child immune system

and strengthens the unique bond between a mother and her child” especially when the process is not interrupted.

Among the UNICEF programme to re-enforce the local arrangement or policies is the Child Friendly Programme which major policy agenda is exclusive breast feeding Programme. Among other considerations, this Programme seeks to ensure that the nursing mother develops very close relationship with her baby at the early stage of physical development Herbert (2008). This is to guarantee uninterrupted breast feeding process in order to ensure that the baby takes the right proportions of food nutrients supplied through the breast milk.

2.3 Clothing and Breast Feeding

Like local and international arrangements and programmes designed to enhance uninterrupted breast feeding, many efforts are being made in the clothing industry to meaningfully re-enforce and guarantee uninterrupted breast feeding process. Cox and Dittmar (1995) and Erwin and Kinchan (1992) agreed that quite appreciable results have been achieved resulting from the concerted efforts being made by the clothing industry to provide comfortable and easy accessibility to breast for breast feeding purposes. Consequently, Gough (2008) pointed out that, breastfeeding mums should feel stylish, confident and comfortable breastfeeding in public. Therefore their clothing should feature hidden nursing openings behind a wrap front, a design to allow easy breastfeeding access without feeling exposed. Gough (2008) went on to say "Breastfeeding mums no longer have to sacrifice styles or fashion thanks to an exclusive new range of contemporary nursing wear". With this in mind, the researcher desires that Nigerian mothers should be free, in fashion, at anytime of their life time whether breastfeeding or not. They should be comfortable even at breastfeeding time.

Dadd (2004) said such clothing has long been identified in the past as "nursing waist" by J. Jocaby (1912) as "nursing gown" by R.T. Coyle 1904 and as "nursing dress" by M. Duenckel (1880). This is to show that the idea of breastfeeding garment is not new though this knowledge has not found a place in the wardrobe of Nigerian women. At all those times, these articles of clothing were intended to facilitate breastfeeding and as primary articles of clothing. They were not intended as supplemental articles of clothing to be worn over or under primary article of clothing, and in fact not readily to be worn in such a way. Because of this, they did not permit mothers wide choices in selection of their garments.

Cavicchi (2007) stated in her article "Breast feeding - Nursing in style" that "many women are uncomfortable nursing in public. But today's nursing fashions can help you nurse with confidence, comfort, and style----- anytime, anywhere!" similarly, CAmpell (2004) talked of many mums feeling awkward at the thought of bearing their tummies in public even though our community is supportive of public breastfeeding. She continued in regular clothes, you need to unbutton or lift up your clothing to access your breast. This makes mums feel awkward because it exposes their tummy and back. Ford (2007) said, many mums are uncomfortable about breastfeeding in public, but all babies need to eat when they are hungry. Shree (2008) also opined that most first time mums are very conscious about nursing their baby in public view. They are worried of about unintentional exposure and rely on feeding bottles when they are away from home. It is very inconvenient breastfeeding baby while travelling or shopping in a mall or when attending a function with a lot of people around you. But with specialised breastfeeding clothes, you simply access your breast through a hidden opening in the clothing. There will be no need to cover up with baby blanket or cape, and it makes outings with baby much easier.

Foster (1990), in her work, opined that nursing garment for nursing a baby should comprise an upper marginal portion which fits over one shoulder and under opposing armpit of the wearer, and has means for securing the garment in this position. A cape portion hangs from the marginal portion and is wider in the centre than at its ends, so as to provide a fullness which allows free movement of the wearer's arm underneath. The outer surface of the garment is usually formed of a towelling material, whilst the inner surface is smooth.

Middleton (1991) in her article "Cape for a nursing mother" is of the opinion that garment for nursing mothers should have arm holes and partially overlapped fabric members which may be draped individually over the nursing infant. A neckband may be closed about the neck in a removable manner. Rear edges of the fabric members terminate rear ward of the wearer in a spaced apart manner while frontal edges of the fabric members terminate on opposite sides of a medial plane of the garment to provide overlapped portions for infant concealment.

Polzin (2005) "Nursing garment" suggested, a nursing garment should include an outer garment and an inner garment. The outer garment can be any suitable garment which has a tubular body for covering the upper region. The inner garment is disposed within the tubular body of the outer garment and attached to the outer garment. The inner garment can be any camisole – type garment which includes two chest panels that overlaps with one another in criss-cross fashion. The chest panels receive and support the wearer's breasts. A nursing mother may raise the outer garment over her chest and pull either chest panel below her breast to make her breast accessible to her baby.

Cavicchi (2007), in her article "Nursing in Style", stipulated, " Many women are uncomfortable to nursing in public". Today there are nursing fashions that can help mothers nurse with confidence, comfort and style anytime and anywhere. Every mother need to own at least 2 blouses (1 top and 1 dress) to give her ease of nursing access and overall comfort. They also need to have good breast feeding night gown to help them to breast feed at night so as not to struggle with their garments.

Cavicchi, (2007) discussed "breast feeding bra top" and the characteristics that nursing bras should have to be referred to as breast feeding bra as follow.

1. An under breast fastener opening allowing the baby the access to breast without exposing any of the breast.
2. An easy access to use fastening mechanism
3. No clips or fasteners on the straps of the garment making it look like a regular top.
4. The upward opening concept and extra length, which means post-partum tummy, concealed.
5. A pocket to hold breast pad in place.
6. Quality cotton spandex fabric to conceal breast pad.

Marszalek, Bartkowink and Lezak (2009) talked of building the perfect Nursing wardrobe. This important and crucial suggestion to the nursing mothers is what informed the basis for this Study. While there is the need for a perfect wardrobe as suggested, the point of perfection is yet to be reached by the present stage of clothing fashion, as it affects, particularly, the nursing mother. Much still needs to be done to arrive at the pattern that could be said to be the perfect, or near perfect, in order to alleviate the nursing mothers from the discomfort they experience to ensure

that their babies have to be fed anytime anywhere. But before we venture in to this important aspect, it is relevant to highlight the history of clothing as a craft.

2.4 The History of Clothing

The history of clothing can be traced to the history of the origin of the human race. Specifically, this took root from the time our first parents, Adam and Eve, fell in to sin. (The New International version of the Holy Bible, Gen. 2:25; 3:10 and 21-). By the contents of these verses, it is obvious that prior to this fateful day, the idea of clothing or dress was not characteristic of man. Ashdown and O'Connell (2006) stressed that though the natural instinct to cover nakedness, if discovered to be naked, was one of the features of man. In the context of the Bible, therefore, whatever variable that may be added to the definition of the concept of clothing, the original idea of the concept, as was developed by God, was for covery. Specifically, clothing was designed to cover man from nakedness. Other functions like cover from cold, and other considerations were non issues for the moment, to the originator of the idea of clothing. According to Craig and Lippincott (1998) Butler (1998) and Milonkovia et al (1999), for instance, "The earliest clothing probably consisted of fur, leather, leaves or grass, draped, wrapped or tied about the body for protection from elements". This definition is a moderation of the idea of dress first conceived by Adam and Eve as stated earlier. The first dress ever used was leaves, followed by fur and animal skin or leather.

Of note is the fact that the primitive concept of dress did not involve complete cover of the body, neither was the ideas of status and tradition paramount. According to Johnson Schofield and Yurchisin (2002), the basic consideration was to cover nakedness. Invariably, the central focus was the waist region, with particular attention to human genital organs. In most primitive

societies, if not all, the buttocks were exposed. Apparently, little or no efforts were made to cover the entire body above the waist region. The implication of this on breast feeding process was very impressive. The baby had access to breast as, and when demanded. Women moved about with breasts exposed, and always ready or willing to serve the food need of the baby.

Nigerian Clothing

Nigeria is a multi-ethnic society. Consequent, her clothing patterns are completely based on her diverse cultures. This is based on the fact that each of the ethnic groups has its traditional dress code. Invariably, therefore, her dress patterns are based on the multiplicity of her cultural groups or ethnic groups Charles and Louise (2008). For instance, said while in the north people prefer their outfit based on their occupations, in the south people are pretty much fond to dressing up. Akeredolu (2002) maintained that, the major or important materials for clothing in Nigeria are lace, jacquard, adire (tie and dye), ankara, etc. The clothing trends for women in Nigeria include:

- a. “Buba”, which is a loose blouse that goes down little below the waist. This blouse or garment is used in almost all the ethnic groups in Nigeria.
- b. “Kaba”: This is basically a single piece dress which can have different styles.
- c. “Iro” (wrapper): This is bottom part clothing which is a rectangular piece of cloth that is wrapped around the waist, used in every ethnic group in Nigeria.
- d. “Gele”: This is a piece of cloth that can be tied round the waist on top of another in different ways. In the north, while gele is used as veil, in the south, gele is also used as a headgear.
- e. “Iborun” or “Ipele”: This is a scarf that is either tied round the neck or is just put diagonally across the body.

2.5 Relevance and Functions of Clothing during Breast Feeding

Ohwovoriole (1993) established the consensus among his respondents that "fashion is out of fashion and the value of comfort and convenience is the current catch ----- in general, I choose clothes that are comfortable and practical". "Like food and shelter, clothing is one of people's most important needs". Das and Ishtique (2004) viewed clothing comfort "as an experience that is caused by integration of impulse passed up the nerves from a variety of peripheral receptors of smell, smoothness, consistency and colour".

However, in modern society, practitioners in the clothing industry, both producers and users, behave as if the central idea behind clothing is to distinguish socio - cultural and economic classes. To others, the idea to project fashion overwhelms the original function of dress. These, and other reasons, explained why Yoh (2005), stated that, "clothes are an outward expression of how people feel about themselves and the world around them. They reflect the person self concept which is believed to be an important controlling force of behaviour. Clothing may convey moods and feelings, contributing to the strengthening of the persons self concept or self regard. Similarly, Cox and Dittmar (1995), Ashelford (2002) and Lindisfame and Ingham (2006) pointed out that "people use clothing for variety of reasons, chiefly, among which are protection against inclemency of climate, real or imagined self- beautification or enhancement and magico-religious requirement". Modernity has, indeed, revolutionalised the concept of clothing. From being a mere object of cover for nakedness, made of leaves, grass, fur and animal skin to serving many functions. This is why Dikko (2006) stated that "clothing is one of the primary needs of human beings". Apart from the basic needs to cover nakedness, which has now almost stands as a secondary function of clothing; each clothing material in modern society is designed to serve definite function(s). Even then, whatever other considerations given the process first starts with

the intention of covering nakedness, which has now almost stands as a secondary function of clothing; each clothing material in modern society is designed to serve definite function(s).

Dikko (2006) re-enforced this argument in her assertion that “it is believed that clothes are worn according to the function they serve; this gives rise to clothes for different occasions”. In this perspective, clothing can be viewed as a functional technology which serves the clothing needs for every human activity, and for distinguishing socio- cultural, economic, occupational and political stratifications. This introduces the idea of clothing comfort ability.

Comfort and convenience in choosing any clothe cannot be viewed in isolation from the idea of relevance. In other words, comfort, convenience and relevance have to be embedded for clothing comfort to be attained. Weber (1990), Militis (2002), Ford (2007) and Okeke (2009) defined clothing relevance in terms of compatibility with (i) occupation, (ii) ethnic, religious and political affiliations (iii) marital status (iv) sexual availability (v) sports, etc. In summary, these sub classifications can be explained thus:- Occupational relevance, sex and marital relevance, cultural relevance and functional relevance.

Sherazi (2001) and Okeke (2009) pointed out that the term comfort cannot be explained only in terms of impulse from the nerves, but also in terms of convenience in the use of the material. For instance, the same tight material which was convenient for one activity may not be convenient for another. Basically, Penz (2008) argued that comfort, especially to the body, is a function of "various psychological considerations such as permeability, thermal retentions, textile characteristics, moisture absorbency wrinkling property and rigidity, which appear to be related to human comfort".

The foregoing show that from the primary need, clothing began to assume some secondary functions, based on the advancement of knowledge. For instance, Charles and Louise (2008) argued that "clothing can assist in defining ones role or place in society; identifying sex, locality, and nationality; in reflecting social stratification and economic status". This sums up the basic functions the clothing industry performs to human society in our contemporary world.

2.6 Maternity Garments

Pregnancy is the period before childbirth (i.e. breast feeding period). At stage on this process the comfort of the mother is very important. Maternity garments are loose garments, which are normally worn by pregnant women. They are made in such a way that there is enough room that will accommodate the bulging stomach. According to Ikpi (1995), "the garments are made to accommodate the bulging stomach but does not provide for the fine figure, even though the growing bulging makes her beautiful".

Jackson and O'Neal (1984) suggested that maternity garments should be light and floral and pastel to always keep the moods light. She said, after all, when the mother is happy the baby is the happiest. She continued that gone are the days that maternity dresses only made the mothers to be much larger than she actually was during the progressive months of pregnancy. Foster (1996) supported this by saying that, designers have gone into producing maternity garments that are fitting and comfortable yet makes the mothers to feel beautiful all through her pregnancy. They also keep in mind colour, texture and temperament of the mother. In fact there are specially designed evening gowns, denims, so she does not have to depend on the same one-piece garment.

Rioda (2006) talked about new lines maternity clothes (including maternity bras). "There are stylish, classy and even sexy maternity clothing items. Maternity bras are very important piece of maternity clothing when you are choosing your new temporary wardrobe". There is need for maternity bras without which it can be extremely uncomfortable for your enlarged breast at pregnancy. She further explained that maternity bras have been designed for specific purposes, such as accommodating the enlarged breasts, keeping the breast warm, allowing free circulation of fluid nutrients in the breasts.

Lucock (2006) talked about maternity and breast feeding brassieres. She said "There are now maternity and breast feeding brassieres that are perfect for pregnant and breast feeding mothers available in the market today". Gough (2007) supported the statement thus; these brassieres are made with a flexible kind of plastic for extra support. The plastic base of maternity of breast feeding brasieres flexes shrinks and changes position as the breasts reshape during breast feeding.

Jones (2006), stated, maternity garments should be patterned fabrics. Prints, plaids, strips and checks help to conceal the silhouette of the wearer. In agreement to this, Ikpi (1995) supported that Silhouette change in the most obvious physical change and it requires non-restricting garments. Their garments should be free, light weight, warmth to maintain proper body temperature, have good absorbent abilities and can easily be cleansed. Pregnant women should be well dressed and smart. She must put into consideration her natural contours of pregnancy. She must accept her present figure which is irregular and will become more as the pregnancy advances. Therefore, not all fashions are suitable for every figure, some lines and silhouettes are

better than others to the contours of pregnancy; care should be taken to the type of maternity garment for every individual.

Hollies and Goldman (2004), comfort is defined as “the absence of unpleasantness or discomfort” or a neutral state compared to the more active state of pleasure.” Dhinakaran, Sundaresan and Dasarada (2011) supported by saying, there is general agreement that the movement of heat and water through garment is probably the most important factor in clothing comfort.

Goldman (2005) assert that comfort is perceived by integration of impulses passed through the nerves from a variety of peripheral receptors like visual, auditory, smell, taste and touch in the brain. Clothing comfort is basically associated with skin sensory systems.

According to Das and Ishiaque (2004), clothing comfort can be divided into three (3) groups: i.e., psychological, textile and thermal comfort. Psychological comfort is mainly related to the aesthetic appeals, which include size, fit, colour, lustre, style, fashion, compatibility etc. While textile comfort has relationship with fabric surface and mechanical properties, thermal comfort is associated with the ability of fabric to maintain skin temperature through transfer of heat and perspiration generated within the human body.

Hollies and Goldman (2004) reported that there are two (2) aspects of wear comfort in clothing.

(1) Thermo psychological wear comfort concerns with the heat and moisture transport property of clothing and the way clothing helps to maintain the heat balance of the body during various levels of activity. (2) Skin sensational wear comfort in clothing is concerned with the mechanical contact of the fabric with the skin, its softness and pliability in movement as well as its lack of prickle, irritation and cling when damp. Marszalek et al (2009) added, “Comfort is considered as

fundamental property when producing or constructing any garment.” The comfort characteristics of fabric mainly depend on the structure, type of raw materials used, and weight of its materials, moisture absorption, heat transmission and skin perceptions.

2.7 Clothing Pattern Design & Construction

According to Weber (1990), design has principles and these can be seen mostly clearly in visual arts of drawing, painting, sculpture and architecture. Whether a designer is an artist, interior designer, fashion designer, he/she will have to learn the terminologies language of designing which are lines, shapes, spaces and texture, which are referred to as elements of designs (Weber (1990) defined thus:

- a. Line - A series of points connected together to form a narrow part.
- b. Shape - The outline, or silhouette, of an object
- c. Space - The area inside the shape, or outline of the object.
- d. Texture - The surface characteristics or feel of an object.

Oguntona (1997) emphasised, design cannot be done until it has been conceived in some one’s mind to be born in physical. Everything about any particular desire effect has to be settled before it will practically be accepted. Chamber Encyclopaedia (1998) conformed by saying, when the design of the garment has settled, the first stage in its production is to prepare a set of patterns of various parts which will be required to be cut out from materials and consequently assembled to make the complete garment". He went on to say, sometimes the patterns are made of stiff paper or board, in which case are placed in position on material and boundaries marked by chalked lines. In some other cases, the patterns are drawn in proper jux-position on a long roll of paper of

the same width as the materials to be cut. The rolls to be cut are perforated along the patterns and placed on the material; chalk is forced through the perforated during laying for cutting.

Sturm (1999) put it as "a plan or intention in art referring to a garment conception of a work and more particularly to the drawing in which a building, pictorial composition or object in three dimensions is originally conceived".

Oguntona (1997) defined design, as "the intended arrangement of materials to produce certain results or effect, construction is to bring something out of the design work". Oguntona added, that designers like printers are concerned with the direction of lines, size of shapes and the shading of colours. In clothing, design and construction is concerned with the lines, shapes forms, textures and colours. When these elements are arranged into pattern that seems emotionally satisfying to expectations, the design is said to have unity. A good design is the one that is pleasing to look at time and time. Gadsby (2005) added that design is to "plan or develop something for a specific purpose". Dikko (2006) explained that clothing design and construction, like any technical work, has its own specific tools peculiar to it. These tools are, tape measures, rulers, curves, pins, tailors chalk, tracing wheel, scissors, pencils and a designer to design the garment accurately, smartly and proportionally. To produce a quality work depends on the skills and the ability of the designer. However, every designed work should be simple to handle.

A garment cannot be made except the designer conceived that in mind. No matter how simple, difficult or bad is the design; there are some specific guides to use in construction. They are drafting, draping, flat pattern and free hand cutting method. It is not every fabric made from any

fibre that is suitable for garment construction. Each fibre has its characteristics and properties that make it different from the other, as well as for particular activity.

According to Choi and Ashdown (2002) fabrics behave so differently, they look and feel differently. For instance, some feel warm and soft, while others feel cool and smooth, some others feel warm and soft but slightly scratchy, some are firm and others stretch and cling to the body. The fundamental difference, of course, is in the basic materials they are made of, while some could be of cotton fibres, others wool fibres. The ways the fibres are made into fabrics make them to behave differently. This deals with the construction method, whether in weaving, knitting or crocheting and the way the fabrics are treated after the clothes are constructed. The finishes applied at the end of weaving could make one a smooth finish, while the other napped to make it soft and warm.

Helen and Gilman (2004) stated that Fabrics differ in three (3) general ways:-

- Fibres from which they are made.
- Types of construction used to form the fibres into clothes.
- Performance or function.

Considering the purpose for this research work, Dora, Lewis Bowers and Kettunen (2004) said fabric for breast feeding wear should be soft, smooth, durable and comfortable to both the mother and the baby. Lewis et al (2004) further explained, it should be of cotton because it can withstand any consideration and temperature. Fabrics made from cotton are soft to touch, cool, and do not cling to the body like some other ones.

Butler (1998) maintained that fabrics made from natural fibres, more especially cellulose fibres, are more suitable and more stress resistant in terms of washing and ironing than synthetic fibre.

Bane (2004) emphasized that consideration be taken on the general characteristics and specific qualities of the fabrics. The absorbency, resiliency, etc., be considered.

2.8 Notions

Notions are small items that complete a garment. Weber 1990 put it is small items such as zippers, snaps, buttons, trims, thread and seam tape that go into the garment. They could be functional or decorative. Their uses determine what it serves in any given garment.

Zippers

Zippers are one of the notions commonly used in garment to complete it. It is a fastener that fastened openings in garments. They are smart in appearance and very satisfactory in use. They are available in different types, weights and lengths. The most common type of zipper is the conventional zipper which has a stop at the bottom. The other type is the specialty zippers for separating, decorating and heavy-duty.

Snaps

Snaps are another form of notion. They are used to close a garment in the front, front neck, side and at back neck. They eye, buckles and hook and loop tapes. They serve both decorative and functional.

Interfacing

It is a piece of cloth or fabric placed between the outer fabric and the facing. Its is used to prevent stretching at neckline, front closings and buttonholes. It shapes collars, cuffs, pockets and hems. It adds crispness and stability to waistbands and belts. They are available in various types and weights. The types of interfacings are determined by the method of application.

Sew-in-interfacings: These types must be stitched to the garment either by hand or machine.

Invisible interfacings: These types have a resin coating on the back and will fuse to fabric when pressed with iron.

Hook and eyes: These are packaged with two types of eyes – curved and straight. A curved eye is used on edges that just meet such as the edge of a collar or neckline. A straight eye is used on lapped edges such as waistband. They come in different sizes.

Buttons

Buttons are available in a wide variety of sizes, shapes and designs. They serve both decorative and functional. When used to close openings it is functional, when used to add beauty to garment is decorative. Buttons are of two types, they are the sew-through buttons and shank buttons.

Trims

These are some form of decoration added to a garment. Such as braids, lace or rickrack. Trims can add a touch of colour or create a new mood for a garment. For example when lace is used, can add romantic feeling of garment, while rickrack gives a casual look. Embroidery and appliques create very colour accents. Trims can also be used to cover a hole, which was mistakenly created at the process of cutting. When this happens, it may look like decorative but it is not.

Velcro (Hook and loop tape)

This consists of two nylon strips, one with tiny hooks and one with looped piles. The hooks and piles intermesh when pressed together. It is available in strips or pre-cut into round or square shapes. Hook and loop tape can be used on overlapping edges. It is excellent for sport wears, children's clothes, home finishing and craft items.

Threads

Procter (2003) defined thread as a “very thin fibre”. It is spinning of fibres into string. Threads are made from different fibres and come in different sizes or thicknesses and colours.

A good quality thread is strong and smooth, has even thickness and resists tangling. Thread is used to join the different part of garment together. Thread is sometimes used for decoration when used in embroidery.

2.9 Review of Empirical Studies on Breast Feeding Mothers' Clothing

Breastfeeding garments have not been given much consideration since breastfeeding in the past was mostly done indoors without the mother having any role to play in the society. Unlike other garments such as maternity wears, sport wears, etc., not much is done on the outfit of breastfeeding mothers in Nigeria. As a result, this particular area is new, very little is accomplished in, it particularly in Nigeria.

A study was carried out by Dikko (2006) on "improvement of Hijab". The major objective of the study was to design, construct and test some modified hijab to address the problems of conventional hijab and to see whether it meet the Islamic coverage requirements for the housewives, nursing mothers and professional women. Four null hypotheses were formulated and tested to find out if the Research Designed Hijab (RDH) were able to solve the problems identified. An experimental method of research was adopted using the studio to produce three sets of modified hijabs. These categories to find out whether the RDH will be accepted and be able to solve the problems mentioned. A set of structured questionnaire was administered to the hijab users and another set to the malami to collect relevant data. These data were analysed and the results presented using descriptive statistics. The hypotheses were tested using Pearson

moment correlation coefficient, student t-test and one way analysis of variance at 0.05 level of significance.

Result of this study revealed the style A of each set were more preferred by the respondents with 18.72% each of Housewives and Nursing mothers and 29.16% Professional women. Style B was preferred by 14.56% Housewives and Nursing mothers and 2.08% Professional women. It also shows that 22.88% Housewives, 24.96% nursing mothers and 29.16% Professional women were very comfortable working with RDH on. The remaining respondents were comfortable doing so. The result also indicated that all the respondents from the three categories can perform their various functions effectively with the RDH on. The research concluded that the PSH could be improved to overcome the inherent problems encountered by the users; therefore the RDH could be a very good substitute for the PSH.

This research is related to the above research in that the researcher attempt to solve problems for Muslim women while the current research is also an attempt to the solve problem of breastfeeding anywhere and anytime by breastfeeding mothers. The research used experimental and descriptive methods to produce the modified hijab while the present research, too, is using experimental and descriptive methods to modify the current Nigerian garment to enable mothers to breastfeed without lifting up the garment. The underlining motive of the above research differs because the research is based on religious affiliation, while the present research provides for every woman regardless of religion.

The study was conducted by Olowoyeye (2011) titled “Comparative preference assessment study of locally designed, constructed and foreign children’s wear in Kaduna State.” The study

examined the assessment and preference of locally designed and constructed children's wear using Nigerian made fabric with foreign (China) children's wears. Four objectives were drawn: To compare and assess the more preferred, Nigerian-made to foreign made; for designing and constructing children's wears. To use suitable notions to design and construct children's wears locally, compared with foreign made children's wears. To assess the qualities preferred and sought for in children's wears. To examine the level of comparative preference of the researcher's locally designed and constructed children's wears to foreign China designed children's wears. Four research questions were raised and four hypotheses were also tested. Simple random sampling was used to select 20 respondents who serve as judges in assessing the locally designed and constructed children's wears and the China made. Two methods of data collection, experimental and questionnaire were used to get the feedback from the respondents. The data were analysed using descriptive statistics, such as mean, median, frequency table and percentage. The result of the analysis showed that the respondents preferred the locally designed and constructed children wears using local fabrics. The four hypotheses tested were rejected. Based on the findings, the following recommendations were made that: The government should finance and encourage local textile companies for mass production of fabrics suitable for children's wears. Opinion of women and experts must be regularly sample on locally made fabrics for improvement. Relevant agencies should stop the importation of foreign made wears as this weakens local production lowers our foreign exchange rate. Professional bodies such as HETAN should form an intermediary arm with Government Agency like SON for standardization of children's wear. Regular exhibition and promotion of Nigerian locally produced children's wears should be supported. The Home Economics Teachers Association of Nigerian (HETAN) should ensure that; carrying out of practical in clothing and textiles is

reemphasized in the secondary school syllabus. This research is related to the present research in the following ways:- it is also designed and constructed the children's wears, it used the same research methods and it is a solving problem research. It attempted to solve problem of children's wears. The present research is also trying to solve problem of breastfeeding in public. The research used studios work and survey method as the present research too. The research differed in their respondents. It also differ with the present research because it compared the products with another products in price and preference while the present research is an acceptability of the designed and constructed garments.

2.10 Summary of Literature Reviewed

Not much work is done on this area therefore the review related literature was on the importance of clothing to human being and policies to enhance breastfeeding nationally and internationally. The comfort of the mothers to enable them perform the art of breastfeeding effectively. It also review other aspects of clothing such as maternity garments for pregnant women. This study is to find out whether breastfeeding mothers would accept the researcher design garments as their special garments and the features that made them special.

CHAPTER THREE

MATERIALS AND METHODS

The main focus of this chapter is presented under the following headings:-

- 3.1 Research Design
- 3.2 Population of the Study
- 3.3 Sample and Sampling Procedure
- 3.4 Instruments for Data Collection
 - 3.4.1 Procedure for Designed Garments
 - 3.4.2 Validity of the Research Instrument
 - 3.4.3 Pilot Study
 - 3.4.4 Reliability of the Instrument
- 3.5 Procedure for Data Collection
- 3.6 Procedure for Data Analysis

3.1 Research Design

The study makes use of two research design methods. There are experimental and survey methods. The garments were specifically designed to address the problems identified during the survey. Survey design, aimed at finding out past observation since the feasibility of experiment was not possible This design was thus adopted because they study sought to find out the opinion of breastfeeding mothers on the acceptability of the self-design and constructed garments for convenient breastfeeding. Kerlinger, (1979, Afolabi (1993) supported this approach because the survey method enable the study of relatively large population that may not be located in the same place and could still produce same results through the sample.

3.2 Population for the Study

The population of the study comprised of all breastfeeding mothers in the territory institution in Taraba State. The comprehensive data on the number of breastfeeding mothers according to the institutions figure are shown on the table 3.1 below according to information and data unit of each of the institution.

Table 3.1: Number of women and breastfeeding women in every Institution

S/No	Institutions in Taraba State	No. of Women	No. of breastfeeding Mothers
1.	College of Agriculture, Jalingo.	200	25
2.	College of Education, Jalingo.	340	45
3.	Taraba State Polytechnic, Wukari.	160	20
4.	Taraba State University, Jalingo.	100	15
Total	=	800	100

Sources: Information and Data Collection Unit of the Institutions (2009)

3.3 Sample Size and Sampling Procedure

The samples for this study were drawn from the population of all women in the four selected tertiary institutions in Taraba State. In order to get the fair representation of the institutions, purposive sampling was used to identify the appropriate sample for the study by purposively selecting from the four tertiary institutions. All breastfeeding mothers totaling 100 were used as samples for this study.

3.4 Instruments for Data Collection

a. Questionnaire

Questionnaire was used to gather data from the respondents divided into four sections:

Section A: Consist of biodata variables of age, education and occupation.

Section B: Consists of 12 questions of 2-Linkert Scale of Yes and No Score as 1 and 0 respectively to seek opinion on features of garments used.

Section C: Consists of 16 questions of 2-Linkert scale of Yes or No scored as 1 and 0 respectively to seek opinion on desirable features of convenient for breastfeeding mothers.

Section D: Consists of 6 questions of 2-Linkert Scale of scale of Yes or No scored as 1 and 0 respectively to seek opinion on level of acceptability of the self-design and constructed garments by the breastfeeding mothers.

Section B: Testing

Testing the acceptability of the Designed and Constructed Garments. The following described garments were constructed and given to the breastfeeding mothers in the study areas for their responses in relationship to the convenience, comfort and ease.

3.4.1 Procedure for Design Garments

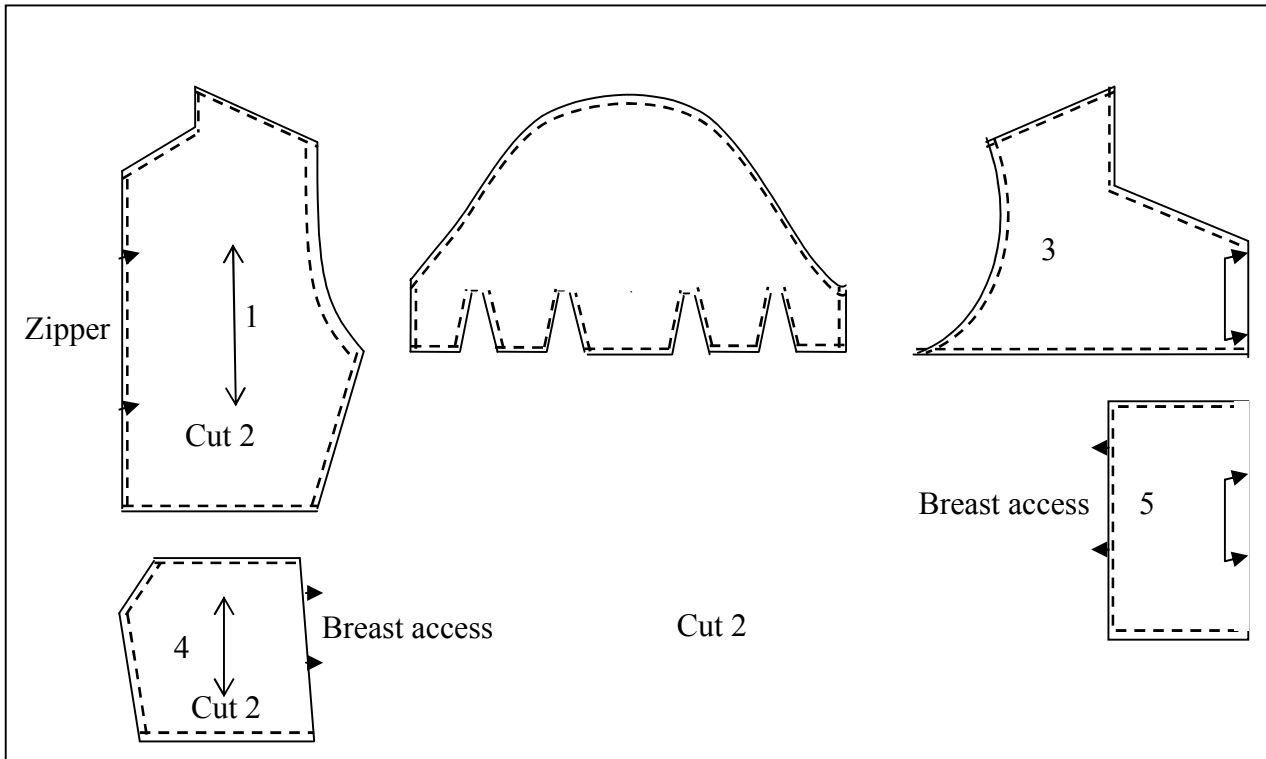
A set of five different Nigerian women garments will be used for this research. They are the commonly used garments by the Nigerian women at any age in life. Also considering the professions that women are into. These are garments with fullness, fitted garments and buba. All garments are freehand cut. They are tagged in this research as “styles” as follows:

Procedure for producing the Researcher Designed Garments (RDG)

Style 1 – Fitted Garment

This style of garment is used by almost every Nigerian woman. It is a fitted garment that portray the shape of the figure. The garment has back, upper front, lower front and sleeve. The back garment has zipper fastener which serve the purpose of fitness on the wearer. The front have the upper front (UF) and lower front (LF). The lower front is again subdivided into three – namely the left side lower front (LSLF), the centre lower front (CLF) and right side lower front (RSLF). The cut of the lower front is done on the bust dart giving the garment it normal look. The breast access (BA) is in seam joining the sides lower front to the centre lower front as indicated by notches. The provision of BA is by the means of zipper fasteners which is 1 ½" above the bust region 5" below the bust region. The upper garment is cut one piece and is joined to the lower garment 1 ½ above the bust region. It overlap the lower garment 2 ½" to hide the end of the zippers. The garment looks normal, beautiful and attractive with BA only known to the wearer.

Figure 1: Pattern for Sample One



KEY

- | | |
|--------|----------------------|
| 1. BG | Back Garment |
| 2. S | Sleeve |
| 3. UFG | Upper Front Garment |
| 4. SLG | Side Lower Garment |
| 5. CLG | Centre Lower Garment |
| 6. N | Notches |

Procedure for Making Style One Pattern

1. Measure back garment and cut two.
2. Measure upper front garment and cut unfold
3. Measure lower front garment and cut the sides two and the centre unfold.
4. Measure the sleeves and cut two.
5. Cut linings the same but less by 1" each at the hem following the above procedures.
6. Stitch linings to the back garment by putting the right side of garment and lining together, stitch round leaving shoulder and armhole region.
7. Join the back garment from the neckline down the waist to the notches points, insert zipper and stitch through.
8. Stitch linings to the lower garment by putting the right side of the garment to the right side of the lining for the lower sides front and stitch round leaving the upper region. Turn and press in position. Do the same to the lower centre front, stitch round leaving the upper region. Do the same to the upper front garment, stitch round but leave the armhole region, turn and press in position.
9. Join the LSLF to CLF from the hemline to notch and insert zipper for BA. Do the same for the RSLF, the lower front garment now is a piece.
10. Attach the upper front garment (UFG) to the lower front garment (LFG) across the bust region 1 ½" above the bust point and overlap the lower garment 2 ½".
11. Put the back and the front garment right sides facing and stitching first the shoulder, then the side seams.
12. Insert the sleeves in the sleeve holes right sides facing and stitch.
- 1.3 Turn and press sleeves in place.

PLATE I: Sample for style



A



B



C



D

Keys

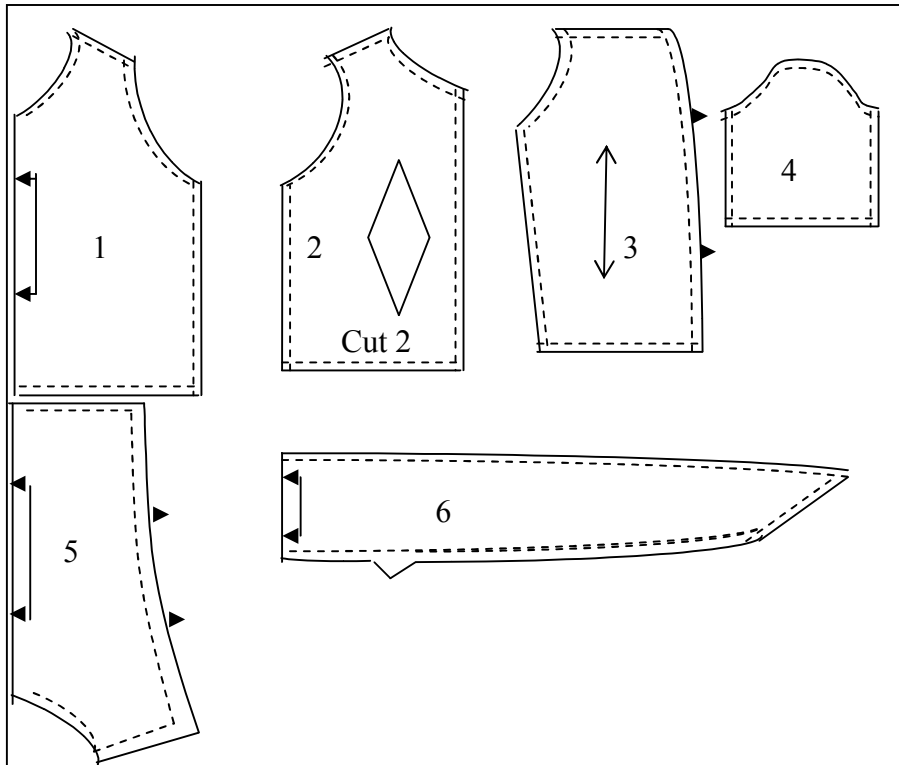
- A = Front View
- B = Back View
- C = Garment showing the breast access
- D = Feeding baby in the garment

Style 2 – Blouse Garment

The garment resembles two pieces suit but is one piece garment. This puts into consideration the women in professions like banking, lawyers, secretaries. The inner garment is only in the front and is attached to the main garment. The researcher style two garment is comprised of back, inner front and outer fronts layers, collar and sleeves. The Breast Access (BA) is in the inner layer of the front garments. The breast access is designed vertical in the inner front garment between the upper and the lower bust along the prince's line. The inner front garment is joined to the front garment on the shoulder and under the arm hold through the side seams. The inner front is designed in round neck style and 3 inches below the waist point of the figure.

The outer front is cut two, right and left front garment and is joined to the inner garment and the back garment on the shoulder, arm hold and side seams. The front garment is designed with fixing means of buttons and buttonholes fasteners to hold the right and the left front in position in the center front.

Figure II: Patterns for Sample Two



Key

1. B – Back
 2. OF – Outer Front
 3. ISF – Inner Side Front
 4. S – Sleeve
 5. ICF – Inner Centre Front
 6. C – Collar
- N – Notches

Procedure for Making Pattern II

1. Measure and cut the centre inner front on fold
2. Measure and cut inner sides two (2)
3. Measure and cut outer front two (right and left sides)
4. Cut sleeves and collar 2 each.
5. Cut left and right front bind for button and button holes
6. Cut the back garment on fold.
7. Join the inner side front to the centre front from shoulder down word to the waist line to the first notch. Then jump to the second notch.
8. Do the same for the left hand side as above.
9. Stitch the outer front and back darts.
10. Join the outer band to the front right and left side and mark the button hole points. Open and neatens.
11. Fold the hem of the sleeves and hem, then stitch sleeves in place.
12. Tack the inner garment wrong side to wrong side of back and wrong side of outer front to the right side of the inner garment then stitch.
13. Stitch the collar and attach to the neck line.
14. Fix the sleeve right side facing the right side garment.
15. Finish garment by hemming the edge of garment.

PLATE II: sample for style 2



A



B



C



D

Key

A – Front View

B – Back View

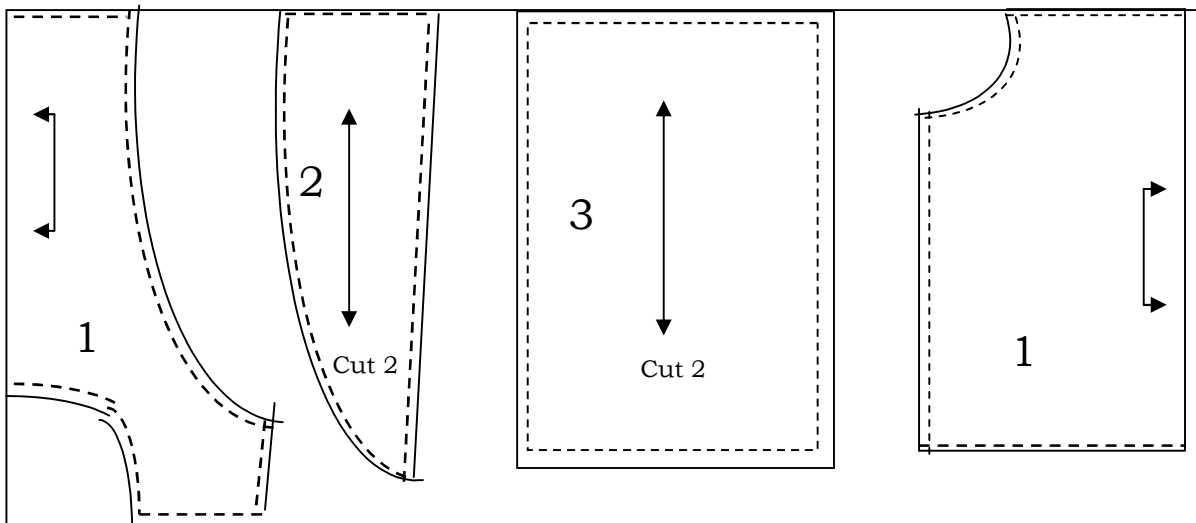
C - Garment showing the breast access

D - Breastfeeding baby in the garment

Style 3 – ‘Buba’

Buba is another garment that is worn by almost every Nigerian woman. The garment comprises of back, front and sleeve. The breast access is concealed in the embroidery work in the front garment. A decorative designed embroidery work is done in the front in the princess line style covering the chest down to the waist line. The garment is around-neck style, it has a long sleeve, free and comfortable on the body of the wearer.

Figure III: Pattern for Sample Three



Key

BCF – Buba Centre Front

BB – Buba Back

BSF – Buba Side Front

S – Sleeve

Stitch lines



Place on fold



Place on Grain



Notch

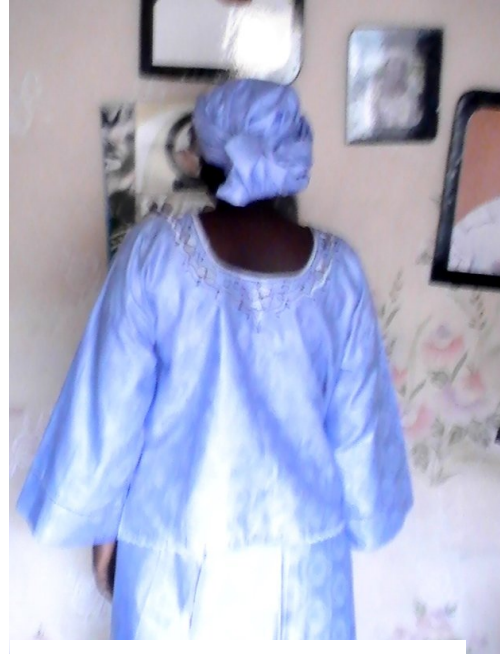
Procedure for Making Pattern III

1. Measure centre front and cut on fold.
2. Measure left and right front side and cut two.
3. Measure back buba and cut on fold.
4. Measure sleeves and cut two.
5. Join centre front to the left side from shoulder to notch A and jump to notch "B" and stitch through. Do same to the other side. Now one piece front.
6. Breast access is concealed between the notches only known by the wearer
7. Right side front and right side back facing, join at shoulder.
8. Hem the sleeve at wrist and join the sleeve to the bodice and stitch right sides facing.
9. Now join the front and back right sides. Start stitching from the wrist to the waist line.
10. The breast access is held in place by a means of press stud.

Plate III: Sample for style 3



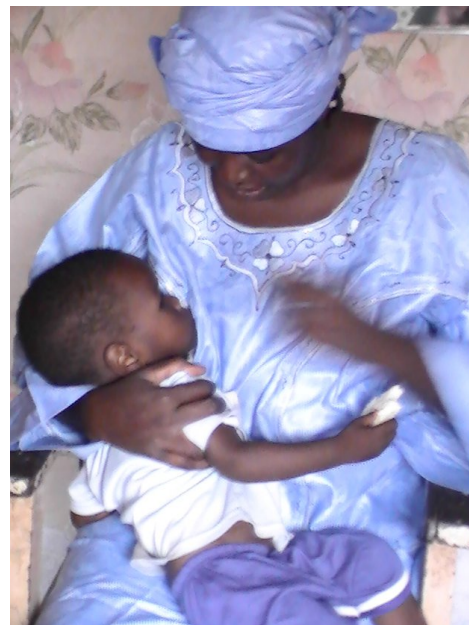
A



B



C



D

Keys

A = Front View

B = Back View

C = Garment showing breast access

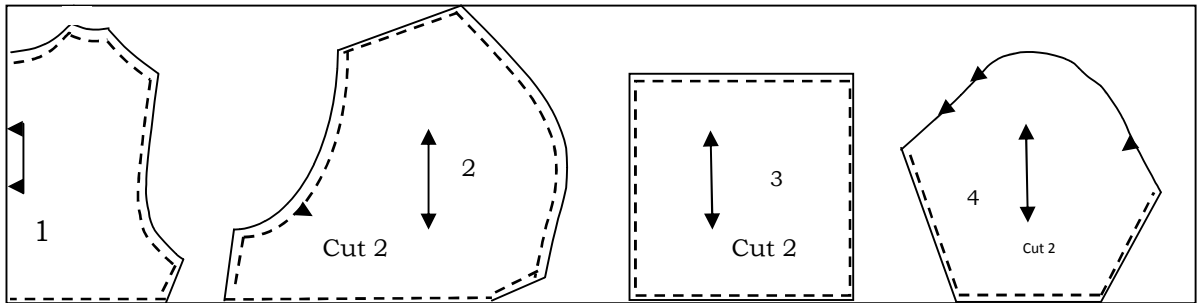
D = Breastfeeding in the garments

Style 4 – Two pieces garments

This style is to make the woman feel stylish even though breastfeeding. The garment takes care of the yet enlarged tummy after birth. It has the upper garment (UG) and the lower garment (LG). The UG is 3 ½" longer below the upper bust region, while the lower garment is 3" above the bust region to create, beauty effect. It is elasticated 3" by mean of elastic thread which holds the garment in place on the body of the wearer. The elastic also served as a means of taking-in-fullness to give the garment shape. The upper garment is in a form of petty coat to be worn on top of the lower garment. It could be attached or detached from the LG depending on individual likeness. The lower garment is lowered down from the elasticated region or point to allow for breast access (BA) for breastfeeding. The front is cut with U-shape neckline, with fitted sleeve. Garment is stylish, beautiful and comfortable..

Figure IV: Pattern for Sample four

Style 4 – Two Pieces Garment



Key

1 =UBG – Upper Back Garment

2 = UFG – Upper Front Garment

3 =- LG – Lower Garment

4 = S – Sleeve

----- Stiches lines

↓ Place on fold

↑ Place on Grain

← Notch

Procedure for Making Pattern IV

1. Measure upper garment back and cut unfold.
2. Measure upper garment front and cut two.
3. Measure sleeve and cut two.
4. The lower garment front and back are the same measure, cut two.
5. Follow the procedure and cut linings but less 1" at the hems.
6. Stitch linings to the upper back at the hem, sides and the neck with right sides facing, turn and press in place

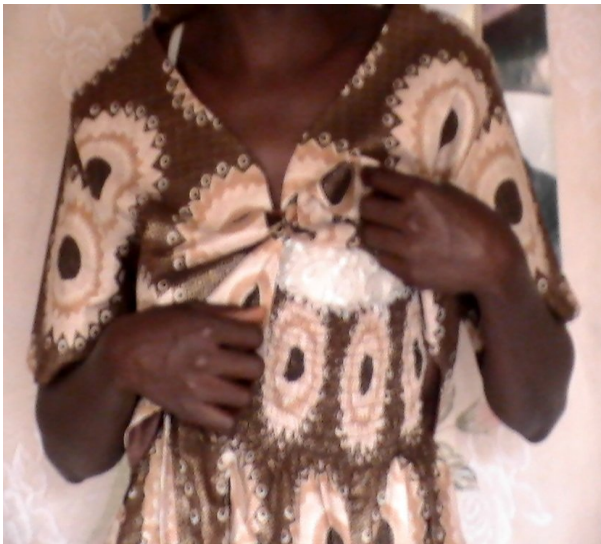
Stitch the lining of the upper front from the neckline, through the centre front through the hem through the. Then turn and press them in position. Do the same to the lower garment making sure that the right sides of the garment and lining are facing and turn the press in position.
7. Join the right front to the back with right facing, starting from the shoulder, then to the side seam leaving the armhole region. Do the same to the left side.
8. Insert the sleeve into the armholes by right side of the sleeve to right side of the garment. Stitch round, turn and press in position.
9. Lower back and front are the same. Using the elastic thread, stitch 7 raw across of ½" aside each. The join the lower front and back at side seams.
10. Turn and press in position.



Front View



Back View



Garment showing breast access



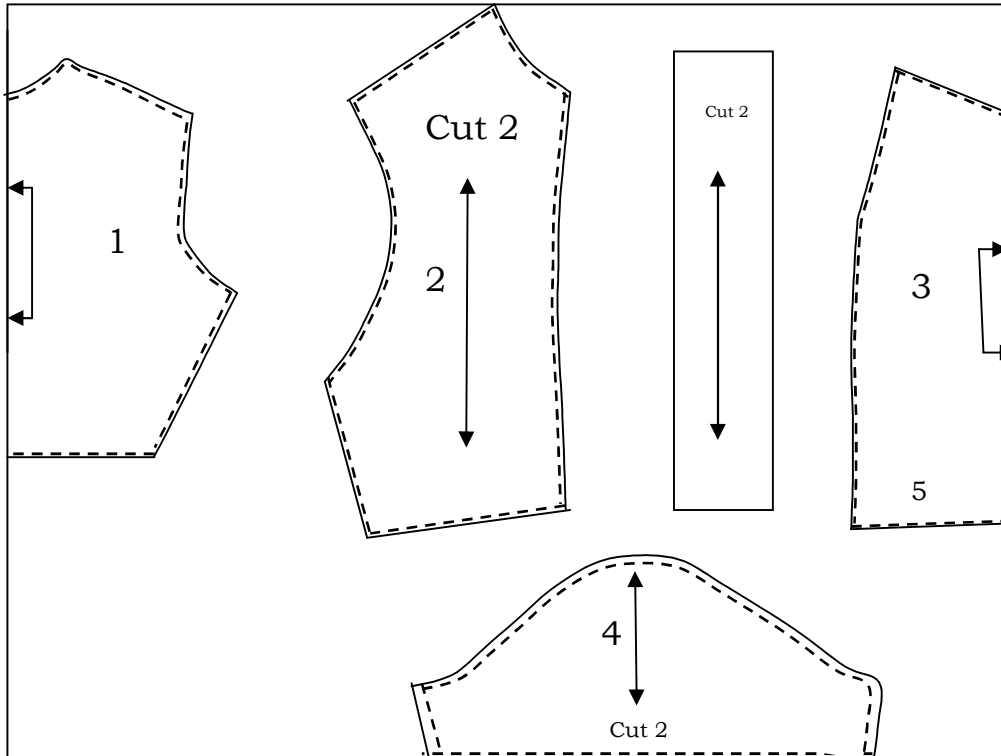
Breastfeeding in the garment

Style 5 maternity garment

This style is loosely fitted but can be adjusted to fitted depending on the wearer and at what stage she is wearing by a means of binds attaché to the garment at the side seam lines. The wearer will pull to fit whenever she wishes. The garment has back, side front, centre front and sleeves. It has high neckline at the back and front is low neckline. The centre front is pleated to accommodate the bulging tummy or the after birth tummy. The breast access is concealed in the seam line joining side front to the centre fronts. This only known to the wearer. The garment is comfortable and stylish.

Figure V: Pattern for Sample five

Style 5 – Yoke Garment with Fullness at the Upper Bust Region



Key

1 =UBG – Upper Back Garment

2 = UFG – Upper Front Garment

3 =- LG – Lower Garment

4 = S – Sleeve

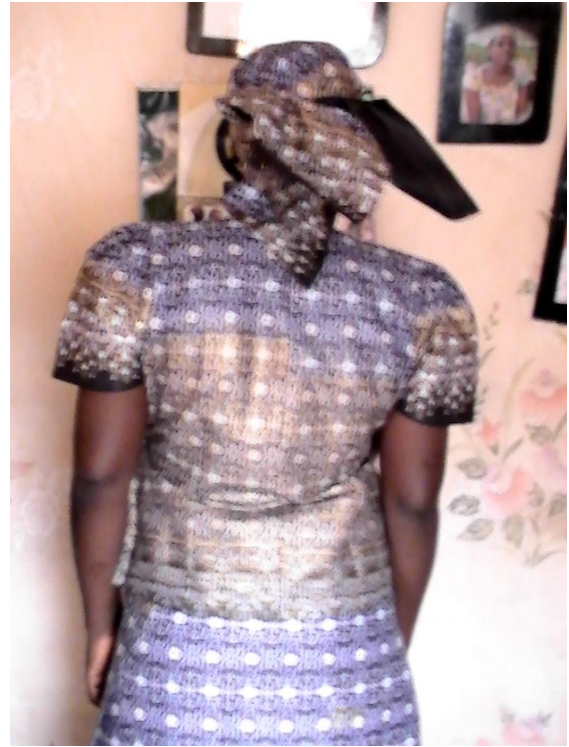
- Stiches lines
- ↕ Place on fold
- ↕ Place on Grain
- ← Notch

Procedure for Making the Pattern V

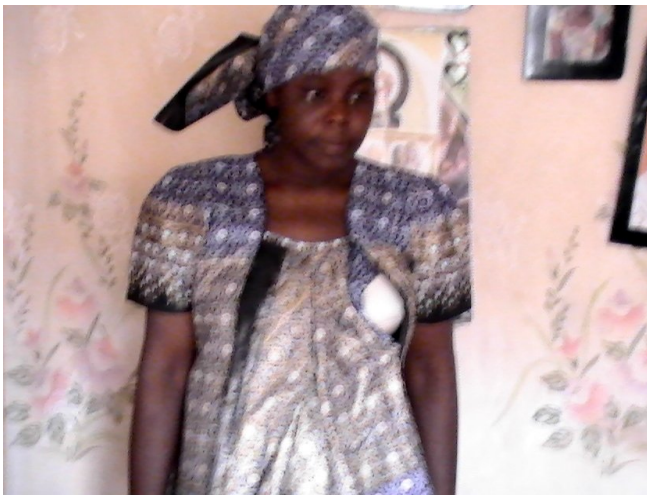
1. Measure and cut back garment (BG) two (2).
2. Measure and cut front side garment (FSG) two
3. Measure and cut centre front garment (CFG) onfold
4. Cut sleeves (S) two
5. Follow the same procedure to cut linings
6. Place right side of garment and lining facing, the stitch shoulder, through the neckline, to the centre back, then finally to hem line. Do the same for the other side.
7. Use the same method for the FSG.
8. Join the CFG to the SFG, starting from the neckline to the notch point, then skip to the next notch to the end, repeat the same for the other side.
9. Pleat the centre front garment (CFG) to require size then stitch the neckline to shape.
10. Join back garment (BG) to front garment (FG) from shoulder, then through the side seam lines.
11. Attach the bind at the waist point of the figure in the wrong side of the garment. The binds is used for giving shape to the garment whenever desired.
12. Insert sleeves matching the notches and stitch round.
13. Turn and press



Front View



Back View



Garment showing breast access



Breastfeeding in the garment

3.4.2 Validity of Research Instrument

The validity describes the extent to which an instrument measures what is suppose to measure. For this purpose the designed questionnaire was subjected to face validity by giving a draft copy to researcher's supervisors and experts in the area of clothing and a statistician for vetting. Their expert advice and corrections were incorporated into the final instruments for this study.

3.4.3 Pilot Study

Twenty copies (20) of questionnaire were distributed for pilot study. The pilot study was conducted in Adamawa State tertiary institutions as these are not going to be part of the main study, but share similar characteristics in all respects. The pilot study was conducted in Adamawa State College of Education, Hong and Polytechnic, Numan.

3.4.4 Reliability of the Instrument

Data collected through pilot study were statistically analyzed for reliability coefficient. The Guttman Option of split-half coefficient and Spearman Brown reliability coefficient were used. Consequently a reliability Coefficient of Alpha level of .705 and standard Alpha of .805 were realized. These are considered adequate as according to Stevens and Spiegel (1999), an instrument is considered reliable if it coefficient lies between 0 and 1. The closer it is to 1 the more reliable is the instrument. Hence this confirms the suitability of the instruments used for this study.

3.5 Procedure for Data Collection

The researcher personally administered the questionnaire to the respondents using the letter of introduction from her institution to enable her conduct the study. The questionnaires were distributed along side with the five samples of the researchers' experimental garments. The respondents were allowed to use them for some few weeks to enable them answer the questions, after which the questionnaires were be collected back by the researcher.

3.6 Procedure of Data Analysis

The data collected were statistically analyzed using both descriptive and inferential statistical methods. For descriptive, the use of frequencies, percentages, mean and standard deviations would be used for the biodata variables and answering of research questions: for test of research hypotheses Analysis of Variance (ANOVA) was be used to test all the three hypotheses. All hypotheses would be tested at 0.05 error level of significance.

CHAPTER FOUR

DATA ANALYSIS: PRESENTATION AND DISCUSSION OF RESULTS

This study titled “Acceptability self-designed and constructed garments for convenient breastfeeding among women in Taraba State” sampled 100 breastfeeding women working in selected tertiary institutions. Their responses on various variables form the data analysis including discussion on finding in this chapter.

4.2 Presentation of Data

The administered questionnaires were returned at a 100% response rate due to close administration by the researcher. More so, the weighted average or mean criterion is used to represent the following criterion

Weighted Average	Response
$WA > 4.5$	Strongly accepted
$4.5 \geq WA > 3.5$	Accepted
$3.5 \geq WA > 2.5$	Undecided
$2.5 \geq WA > 1.5$	Unaccepted
$1.5 \geq WA > 0$	Strongly unaccepted

The data are hereby presented and analyzed.

Table 4.1.1: Distribution of Respondents by Age

Age range	Frequency	Percentage
15 – 19	4	40.0
20 – 24	14	14.0
25 – 29	20	20.0
30 – 34	28	28.0
35 – 40	19	19.0
Above 40	15	15.0
Total	100	100.0

The respondent's age distribution showed that ages 30 – 34 had 28 (28.0%) while ages 26 – 29 had 20 (20.0%) representation. Ages 25 – 29 had 20 (20.0%) respondents as against ages 35 – 40 with 19 (19.0%) respondents, while 15 (15.0%) are above 40 years old. Ages 20 – 24 had 14 (14.0%) sample while the rest 4 (4.0%) are between 15 – 19 years. This table did present the age variations of the respondents but shows that breastfeeding mothers cut across this age range and have the tendency to use specified breastfeeding garment.

Table 4.2.2: Distribution of Respondents by Education Qualification

Age range	Frequency	Percentage
Primary Education	11	11.0
Secondary Education	9	9.0
Post Secondary Education	29	29.0
University	41	41.0
Others	10	10.0
Total	100	100.0

The educational qualification distribution of the respondents according to the Table 4.1.2 above showed that 41 (41.0%) of the respondents are University graduates, while 29 (29.0%) others have their post secondary education. Secondary education have 9 (9.0%) respondents while 11 (11.0%) had primary education and the rest 10 (10.0%) have other forms of qualification. Breastfeeding mothers could be classified a literate as shown in the table above.

Table 4.2.3: Distribution of Respondents by Occupation

Occupation	Frequency	Percentage
Lecturers	13	13.0
Health personnel	17	17.0
Accountants	29	29.0
Cleaners	21	21.0
Secretaries	16	16.0
Others	4	4.0
Total	100	100.0

According to Table 4.1.3, 29 (29.0%) of the respondents are accountants, while another 21 (21.0%) are cleaners. Lecturers accounted for 13 (13.0%) of the sample respondents while health personnel accounted for 17 (17.0%). Also, 16 (16.0%) of the respondents are secretaries, while the remaining 4 (4.0%) are in other types of occupation. Breastfeeding mothers undertake the above job responsibility to cater for their own professional, social, family as well as the economic need.

ANSWERING RESEARCH QUESTIONS

Research Question 1:

Table 4.2.4: Opinion of respondents on the level features of the garments used by Breastfeeding mothers in Taraba State

S/N	Garments	Acceptability		Mean	S.D
		Yes	No		
1	Loosely fitted blouse	94 (94.0%)	6 (6.0%)	.9400	.23868
2	Tight fitted blouse	93 (93.0%)	7 (7.0%)	.9300	.25643
3	Blouse with pocket	82 (82.0)	18 (18.0%)	.8200	.38612
4	Gathered garment from neckline	81 (81.0%)	19 (19.0%)	.8100	.39428
5	Strap sleeve blouse	71 (71.0%)	29 (29.0%)	.7100	.45605
6	Front embroidered fitted garment	71 (71.0%)	29 (29.0%)	.9100	.45605
7	Pleated blouse at waist	93 (93.0%)	7 (7.0%)	.9300	.2501
8	Kimolo sleeve garment	94 (94.0%)	6 (7.0%)	.9400	.23868
9	Flare garment	90 (90.0)	10 (10.0%)	.9000	.30151
10	Garment with conspicuous facing	77 (77.0%)	23 (23.0%)	.7700	.42295
11	Gathered garment at waist region	55 (55.0%)	45 (45.0%)	.5500	.5000
12	Garment with buttons at neck region	90 (90.0%)	10 (10.0%)	.9000	.4505

The Table 4.2.4 revealed the respondents level of opinion on the desirable features of garments for convenient breastfeeding. The highest mean response of .9400 is that garments should be have loosely fitted blouse and that show that 94 (94.0%) and 93 (93.0%) were of these views respectively.

Table 4.2.5: Desirability level of self-designed and constructed garments among breastfeeding mothers in Taraba State.

Keys: **HD-Highly desirable (5), D-Desirable (4), UD-Undecided (3), FD-Fairly desirable (2) and ND-Not desirable (1)**

S/N	Features	Level of desirability													
		HD	%	D	%	UD	%	FD	%	ND	%	Total	%	Mn	Rmk
1	Garment should be free.	65	65.0	20	20.0	5	5.0	8	8.0	2	2.0	100	100.0	4.38	D
2	Garment should have concealed opening in invited pleats at bust region.	60	60.0	15	15.0	2	2.0	15	15.0	8	8.0	100	100.0	4.04	D
3	Garment with slash opening.	58	58.0	21	21.0	3	3.0	12	12.0	6	6.0	100	100.0	4.13	D
4	Garment with inward facing pleat centred on and along the upper front in the vicinity of the breast.	70	70.0	15	15.0	3	3.0	10	10.0	2	2.0	100	100.0	4.41	D
5	Garment with fastenings at bust region.	50	50.0	25	25.0	5	5.0	15	15.0	5	5.0	100	100.0	4.0	D
6	Garment with conceal slash opening in gathers	61	61.0	21	21.0	2	2.0	10	10.0	6	6.0	100	100.0	4.2	D
7	Garment with button in the centre front and side	45	45.0	7	7.0	3	3.0	5	5.0	40	40.0	100	100.0	3.1	ND
8	Garment with a form of closure using zipper at the centre back.	10	10.0	10	10.0	15	15.0	5	5.0	60	60.0	100	100.0	2.0	ND
9	Garment with a form of closure using snaps.	20	20.0	5	5.0	20	20.0	5	5.0	50	50.0	100	100.0	2.4	ND

Note: The mean criterion of above 3.5 was used to accept the level of desirability of the specimen and below 3.5 was used to reject it.

Table 4.2.5 presented the desirability level of distinctive features of designed and constructed garments for breastfeeding mothers in Taraba state. Here, it could be seen that on the aspect that garment should be free, 65% revealed that it was highly desirable while 20% indicated that it was desirable. Thus, from the mean aggregate of 4.38, we can deduce that there is a high tendency of its desirability among breast feeding mothers. On the aspect whether the garments should have concealed opening and pleat at bust region, 60% of respondents indicated that it was highly desirable, while 15% revealed that it was desirable. More so, 15% of the respondents agreed that it was fairly desirable while 8% completed indicated it was not. The deduction to be submitted here was drawn from the weighted mean average of 4.04 which shows a high level of desirability. Thus, we could say that tendency that breast feeding mothers would want their breastfeeding garment to have concealed opening and pleated at the bust region.

Here again in this table, it was shown that 58% responding breastfeeding mothers highly desired that there breastfeeding garment possess slash opening at the bust region for the ease of bringing out the breast whenever they wished to breastfeed their baby or babies while 21% responding mothers desired that it should be so. We could surmised here that based on the mean average of 4.13 that there is the tendency that the inclusion of this basic feature will enhance the ease of breastfeeding among mothers. Furthermore, 70% of the respondents went on further to revealed that pleat at the bust region should be inward and along the upper vicinity of the bust while 15% desired it should be so. We could inferred here that based on the mean criterion of 4.41 that there is a high tendency among breastfeeding mother desirous that this feature be included in garments designed and constructed for breastfeeding.

On the aspect of fastening at the bust region, 50% breastfeeding mothers indicated a high level of desirability that this be included in the designed as well as the construction of breastfeeding garments while 25% respondents revealed their desirability to this feature. Only 15% and another 5% said that it was fairly desirable and completely not desirable. However, the difference in the last group of respondents, we concluded based on the mean score of 4.0 that there is a high tendency for the inclusion of this feature in the design and construction of breastfeeding garments among pregnant women.

The performance for garments with features like concealed slash opening in gathers was supported by 61% of breastfeeding mothers who revealed that it was highly desirous while 21% other respondents desired that it should be made part of the garment. Based on the respondents desire and the weighted average mean score of 4.2, we deduced that there is a high tendency that breastfeeding do want a feature such as this to also be included in the construction of specific breastfeeding garments. In as much as the foregoing features could be said to be desired by breastfeeding mothers, only 45% mothers revealed that they want their garments to have button in the centre front and side, while another 7% indicated their likeness. Here also, 40% breastfeeding mothers completely revealed that they were not desirous of this feature as 5% indicated that they fairly desired it. Thus, from the mean score of 3.1, we could infer that there is the tendency that this feature may not be desired by most breastfeeding mothers.

Conversely, the east of breastfeeding garments among breastfeeding mothers would entail that the garments is not only designed but that the inclusion of undesirous features would lead to uncomfortable use and outright rejection. On the aspect of whether it should have a zipper at the centre back, 60% respondents revealed that it was completely not desired. 10% of respondents affirmed that it was highly desired and another 10% just indicated that it will be desired as only

5% of breastfeeding mother said that it will be fairly desired. Drawing our deduction from the mean average of 2.0, it could be said that there is a very weak tendency that the inclusion of the zipper will be desired among breastfeeding mothers.

Finally, from the table above, it was shown that 50% respondents did not desire garments with a form of closure using snaps. 20% respondents indicated it could be highly desired, 5% agreed that it could be desired while another 5% revealed that it was fairly desired. From the mean score of 2.4, the inference to be drawn here is that, there is also a very low or weak tendency that where closure using snaps is included in garments meant to be worn by breastfeeding mothers will be desired by the majority of these groups of mothers.

Table 4.2.6: ACCEPTABILITY OF SELF- DESIGNED AND CONSTRUCTED GARMENT FOR BREAST FEEDING MOTHERS

Keys: HA-Highly Acceptable (5), A-Acceptable (4), UD-Undecided (3), FA-Fairly Acceptable (2) and ND-Not Acceptable (1)

Variables/ specimen	HA	%	A	%	UD	%	FA	%	NA	%	Total	MEAN	RM
Specimen1	60	60.0	25	25.0	0	13	13	13.0	2	2.0	100	4.28	A
Specimen 2	70	70.0	20	20.0	2	2.0	8	8.0	0	0.0	100	4.52	HA
Specimen 3	63	63.0	35	35.0	2	2.0	0	0.0	0	0.0	100	4.61	HA
Specimen 4	56	56.0	29	29.0	1	1.0	11	11.0	3	3.0	100	4.24	A
Specimen 5	68	68.0	16	16.0	1	1.0	10	10.0	5	5.0	100	4.32	A

Note: The mean criterion of 3.5 above was used to accept the level of acceptability of the specimen and below 3.5 was used to reject it.

From the table, 60% respondents who breastfed their children revealed that the first specimen garment was highly accepted while 25% indicated their acceptance of the garment. 13% of the respondents said that it was fairly accepted while 2% revealed that they did not accept the garment. From the mean score of 4.28, it could be inferred that there is a high tendency of acceptance of the first specimen by breastfeeding mothers. While assessing the second specimen garments acceptability level, 70% respondents revealed that they highly accepted the design, 20% said that it was accepted. From the submissions of these respondents and the weighted mean average of 4.52, it could be deduced that the second specimen was also highly accepted by breastfeeding mothers.

More so, 63% of responding breastfeeding mothers indicated that the third specimen was highly accepted while 35% other respondents revealed that it was accepted. We could deduce from the table's mean score of 4.61 that there is a very high tendency of acceptance among breastfeeding mothers. The test of acceptability also carried out among breastfeeding mothers on the fourth specimen shows that 56% respondents highly accepted the specimen while 29% indicated their acceptance. Here also, 11% and another 3% respondents fairly accepted and did not accept the specimen respectively. Again, we surmise here based on 4.24 mean score, that there is also a better tendency of the specimen being accepted among breastfeeding mothers. The data presented on the fifth specimen shows that 68% respondents highly accepted the specimen as good for them while 16% also accepted it as good for breastfeeding mothers. Similarly, while 10% respondents fairly accepted the design specimen, 5% respondents completely did not accept it. From this, we draw our conclusion based on the mean average of 4.32 that there is a high likelihood that this specimen will also be accepted by breastfeeding mothers.

Table 4.2.7: UNIQUENESS OF SELF- DESIGNED AND CONSTRUCTED GARMENT FOR BREAST FEEDING MOTHERS

Keys: HU-Highly unique (5), U-Unique (4), UD-Unclassified (3), FU-Fairly unique (2) and NU-Not Unique (1)

Variables/ specimen	HU	%	U	%	UD	%	FU	%	NU	%	Total	Mn	RM
Specimen 1	80	80.0	10	10.0	3	3.0	5	5.0	2	2.0	100	4.6	HU
Specimen 2	74	74.0	16	16.0	5	5.0	4	4.0	1	1.0	100	4.58	HU
Specimen 3	78	78.0	10	10.0	2	2.0	7	7.0	3	3.0	100	4.53	HU
Specimen 4	68	68.0	16	16.0	5	5.0	10	10.0	1	1.0	100	4.40	U
Specimen 5	70	70.0	20	20.0	3	3.0	6	6.0	1	1.0	100	4.52	HU

Note: The mean criterion of 3.5 above was used to accept the level of uniqueness of the specimen and below 3.5 was used to reject it.

The table here presented uniqueness level of self-designed and constructed garments for breastfeeding mothers. The first specimen presented shows that 80% of respondents revealed that it was highly unique while 10% believed it was unique. From this as well as the weighted mean of 4.60, we conclude by stating that there is the tendency of the first specimen garment being unique. Assessing the uniqueness level of the second specimen garments, 74% responding breastfeeding mothers indicated that this too was highly unique while 16% respondents corroborated that it was unique. Thus, based on 4.58 mean score, we deduced here that the second specimen garments do possess an encouraging tendency of a high level of uniqueness. Subsequently, 78% of respondents while assessing the third specimen revealed that it was highly unique in its make and 10% other respondents affirmed its uniqueness. Based on this high number of responses and on the mean value of 4.58, it could be surmised here to mean that the third specimen garment is highly unique.

On the fourth specimen garment, 68% of the breastfeeding mothers polled said that it was highly unique while another set of 16 respondents representing 16% revealed that it was just unique. On this specimen also, 10% respondents indicated that it was fairly unique while just 1% respondents completely said that it was not unique. The inference from these assessment based on the mean criterion of 4.40 is that there is a high tendency that the specimen is unique. Finally on this table, the fifth specimen was also assessed on its level of uniqueness. Here, 70% respondents revealed that it was highly unique while another 20% indicated that it was unique. Based on this response and on the weighted average score of 4.52, it could be deduced that there is a high tendency that the specimen is unique.

Table 4.2.8: COMFORTABILITY OF SELF- DESIGNED AND CONSTRUCTED GARMENT FOR BREAST FEEDING MOTHERS

Keys: HC-Highly comfortable (5), C-Comfortable (4), UD-Undecided (3), FC-Fairly comfortable (2) and NC-Not comfortable (1)

Variables/ specimen	HC	%	C	%	UD	%	FC	%	NC	%	Total	Mn	RM
Specimen 1	75	75.0	16	16.0	1	1.0	5	5.0	3	3.0	100	4.55	HC
Specimen 2	80	80.0	10	10.0	0	0.0	7	7.0	3	3.0	100	4.57	HC
Specimen 3	78	78.0	12	12.0	0	0.0	6	6.0	4	4.0	100	4.54	HC
Specimen 4	68	68.0	12	12.0	3	3.0	12	12.0	5	5.0	100	4.26	C
Specimen 5	70	70.0	16	16.0	1	1.0	10	10.0	3	3.0	100	4.4	C

Note: The mean criterion of 3.5 above was used to accept the comfortable level of the specimen and below 3.5 was used to reject it.

The table shows respondents assessment of the level of comfort in the use of the self-designed and constructed garments specimen for breastfeeding mothers. On the first specimen, 75% respondents revealed that it was highly comfortable supported by another 16% respondents who indicated that it was comfortable. Based on the overwhelming response and on the weighted average mean score of 4.55, we deduced that the first specimen is highly comfortable. The second specimen shows that 80% respondents indicated that it was highly comfortable and 10% respondents affirmed that it was comfortable. 7% of the respondents revealed that it was fairly comfortable while the least of 3% respondents completed said that it was not comfortable.

Again, based on the mean value of 4.57 and the overwhelming responds, it could be surmised her that the tendency of comfort of the designed and constructed breastfeeding garment is high. On the third specimen, 78% respondents revealed that it was highly comfortable and 12% respondents affirmed that it was comfortable. Based on this and from the mean score of 4.54, we conclude that there is a high level of comfort experienced from the third specimen. While assessing the fourth specimen, 68% respondents who breastfed their children and were asked to assess the specimen revealed that it was highly comfortable and another set of 12% respondents indicated that it was comfortable.

More so, on the fourth specimen, another 12% and 5% respondent indicated that it was fairly comfortable and not comfortable respectively. Thus, based on the mean value of 4.26, we submit that there is the tendency that the fourth specimen is comfortable for the use of breastfeeding mothers. Finally on this table, the fifth specimen was also assessed on its level of comfort. Here again, 7% respondents revealed that it was highly comfortable and supported by 16% other

respondents who affirmed that it was comfortable. Here again, 10% respondents and another 3% indicated that it was fairly comfortable and not comfortable respectively. Thus, from the mean score of 4.4, it could infer here that the fifth specimen is also comfortable for use by breastfeeding mothers.

Table 4.2.9: PRIVACY OF SELF- DESIGNED AND CONSTRUCTED GARMENT FOR BREAST FEEDING MOTHERS

Keys: HP-Highly private (5), P-Private (4), UD-Undecided (3), FP-Fairly private (2) and NP-Not private (1)

Variables/ specimen	HP	%	P	%	UD	%	FP	%	NP	%	Total	Mn	RM
Specimen 1	80	80.0	15	15.0	0	0.0	5	5.0	0	0.0	100	4.70	HP
Specimen 2	82	82.0	10	10.0	0	0.0	8	8.0	0	0.0	100	4.66	HP
Specimen 3	77	77.0	13	13.0	0	0.0	10	10.0	0	0.0	100	4.57	HP
Specimen 4	76	76.0	13	13.0	0	0.0	11	11.0	0	0.0	100	4.54	HP
Specimen 5	70	70.0	20	20.0	0	0.0	10	10.0	0	0.0	100	4.50	HP

Note: The mean criterion of 3.5 above was used to accept the privacy level of the specimen and below 3.5 was used to reject it

The table shows respondents' assessment of the privacy of self-designed and constructed garments for breastfeeding mothers. From the first specimen shown, 80% respondents revealed that it was highly private and 15% indicated that it was private. From respondents response and based on the weighted mean score of 4.70, it could be deduced that the first specimen has a very high tendency of ensuring the privacy of mothers burst while breastfeeding their children. On the second specimen, 82% respondents said that it was highly private and supported by 10% respondents who acknowledged that it was private with only 8% of respondents indicating that it was fairly private. Thus, from the mean score of 4.70 as well as the majority of respondents' response, it could be surmised here that the second specimen has the tendency of a high level of privacy.

Assessing the third specimen, 77% respondents revealed that it was highly private and another 13% of the respondents indicated that it was private while 10% of the respondents said that it was fairly private. From the mean of 4.57, it could be deduced that there is also a very high tendency that the specimen met the privacy criteria that ensures the privacy of mothers burst whenever they breastfeed their children. The assessment of the fourth specimen shows that 76% respondents revealed that it was highly private and another 13% affirmed that it was private; while 11% of the respondents indicated that it was fairly private. In view of the respondents response as well as the weighted mean average of 4.54, it could be deduced that the fourth specimen safeguards the privacy of breastfeeding mothers burst.

Finally on this table, the fifth specimen was also assessed based on its level of privacy. Here, 70% respondents indicated that it was highly private and 20% of the respondents supported that

it was private while 10% of the respondents revealed that it was fairly private. Thus, based on the 4.50 mean value the inference to be drawn here was that, there is a very high tendency that the fifth specimen is private enough for the use of breastfeeding mothers.

Table 4.2.10: FITNESS LEVEL OF SELF- DESIGNED AND CONSTRUCTED GARMENT FOR BREAST FEEDING MOTHERS

Keys: HF-Highly fitting (5), F-Fitting (4), UD-Undecided (3), FF-Fairlyfitting (2) and NF-Not fitting (1)

Variables/ specimen	HF	%	F	%	UD	%	FF	%	NF	%	Total	Mn	Rm
Specimen 1	65	65.0	25	25.0	1	1.0	7	7.0	2	2.0	100	4.44	HF
Specimen 2	60	60.0	30	30.0	1	1.0	7	7.0	2	2.0	100	4.39	F
Specimen 3	55	55.0	25	25.0	5	5.0	15	15.0	0	0.0	100	4.20	F
Specimen 4	62	62.0	28	28.0	1	1.0	8	8.0	1	1.0	100	4.42	F
Specimen 5	60	60.0	30	30.0	3	3.0	5	5.0	0	0.0	100	4.41	F

Note: The mean criterion of 3.5 above was used to accept the fitness level of the specimen and below 3.5 was used to reject it

The table presented respondents assessment of the fitness level of the five self-designed and constructed garments for breastfeeding mothers. The first specimen was assessed by 65% of the respondents as highly fitting while 25% respondents indicated that it was fitting. Another sets of 7% and 2% respondents revealed that it was fairly fitting and not fitting completely. Drawing conclusion from the mean value of 4.44, it could be deduced that the first specimen is fit for breastfeeding mothers needs. On the second specimen, 60% of the respondents and another 30% revealed that it was highly fitting and fitting respectively. 7% and another 2% indicated that it was fairly fitting and not fitting respectively. Thus, based on the mean value of 4.39, it could be said that the second specimen is also fit for the use of breastfeeding mothers. Furthermore, the third specimen was assessed by 55% of the respondents as highly fitting and supported by 25% respondents who indicated that it was fitting while 15% of the respondents revealed that it was not fitting for use by breastfeeding mothers. Drawing our inference from the mean score of 4.20, it could be inferred that the third specimen is fit for use.

More so, the fourth specimen shows that 62% respondents revealed that the specimen is highly fitting and supported by 28% of the respondents as fitting while 8% of the respondents indicated that it was fairly fitting. Again, we could deduce based on the weighted average of 4.42 that the fourth specimen is also fit for use by breastfeeding mothers. Finally, on the table, the fifth specimen was assessed by 60% respondents who affirmed that it was highly fitting and another 30% of the respondents indicated that it was fitting as 5% and another 2% of the respondents revealed that it was fairly fitting and not fit for breastfeeding mothers use respectively. Based on the weighted mean value of 4.41, it could be deduced that the fifth specimen have the tendency to fit the use of breastfeeding mothers.

4.3 TEST OF NULL HYPOTHESES

The three null hypotheses formulated for the research was here tested using the Analysis of Variance (ANOVA) one way test and the result is hereby presented as well as interpreted.

4.3.1 Test of the first null Hypothesis

HO1: There is no significant difference between respondents' views on the uniqueness features of self-designed and constructed garments used by breastfeeding mothers and their age differences.

Using demographic data tabulated for the distribution of respondents' age on table 4.2.1 and the tabulated values the uniqueness value on the first specimen on table 4.2.7 to test the hypothesis, the following were obtained from the One way Analysis of Variance (Anova) tests.

4.3.1.1 Anova Test of distribution of respondents ages by the uniqueness value of the first specimen

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	63.172	5	12.634	57.603	.000
Within Groups	20.618	94	.219		
Total	83.790	99			

Thus, from the table above, the p-value is $<.005$ or less than alpha was used. Where $F(1, 27) = 57.603$, $P=.000 < 0.05$. Since the result at alpha of 0.05 or level of significance is statistically significant, we reject the hypothesis above and conclude that there will be a significant difference between respondents' views on the uniqueness features of self-designed and constructed garments used by breastfeeding mothers and their age differences.

Furthermore, the level of difference is then measured by calculating the square effect.

$$\text{Eta}^2 = \frac{\text{Square between groups}}{\text{Square total}} = \frac{63.172}{83.790} = 0.75$$

It could be further deduced that based on the measure of difference or relationship of 0.75 that there exist a good relationship between the variables tested above.

4.3.2 Test of the Second Null Hypothesis

HO2: There is no significant difference between respondents' views on the comfortable features of self-designed and constructed garments used by breastfeeding mothers and their occupation.

Using demographic data tabulated for the distribution of respondents' occupations on table 4.2.3 and the tabulated values the comfortable values on the first specimen on table 4.2.8 to test the hypothesis, the following were obtained from the One way Analysis of Variance (ANOVA) tests.

4.3.2.1 Anova Test of distribution of respondents' occupation by the comfortable values on the first specimen

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	76.253	5	15.251	86.898	.000
Within Groups	16.497	94	.176		
Total	92.750	99			

Thus, from the table above, the p-value is <.005 or less than alpha was used. Where F (5, 94) = 86.898, P=.000<0.05. Since the result at alpha of 0.05 or level of significance is statistically significant, we reject the hypothesis above and conclude that there will be significant difference

between respondents' views on the comfortable features of self-designed and constructed garments used by breastfeeding mothers and their occupation.

Furthermore, the level of difference is then measured by calculating the square effect.

$$\text{Eta}^2 = \frac{\text{Square between groups}}{\text{Square total}} = \frac{76.253}{92.750} = 0.82$$

It could be further deduced that based on the measure of difference or relationship of 0.82 that there exist a good relationship between the variables tested above.

4.3.3 Test of the third Null Hypothesis

HO3: There is no significant difference between respondents' views on the acceptability of self-designed and constructed garments used by breastfeeding mothers and its privacy features.

Using demographic data tabulated for the acceptability values on the first specimen on table 4.2.6 and the tabulated values the privacy values on the first specimen on table 4.2.9 to test the hypothesis, the following were obtained from the One way Analysis of Variance (ANOVA) tests.

4.3.3.1 Anova Test of the acceptability value by the privacy values on the first specimen

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	37.769	3	12.590	91.349	.000
Within Groups	13.231	96	.138		
Total	51.000	99			

Thus, from the table above, the p-value is <.005 or less than alpha was used. Where $F(3, 96) = 91.349$, $P = .000 < 0.05$. Since the result at alpha of 0.05 or level of significance is statistically significant, we reject the hypothesis above and conclude that there will be significant difference between respondents' views on the acceptability of self-designed and constructed garments used by breastfeeding mothers and its privacy features.

Furthermore, the level of difference is then measured by calculating the square effect.

$$\text{Eta}^2 = \frac{\text{Square between groups}}{\text{Square total}} = \frac{37.769}{51.000} = 0.74$$

It could be further deduced that based on the measure of difference or relationship of 0.74 that there exist a good relationship between the variables tested above

4.4 SUMMARY OF MAJOR FINDINGS

The followings were the summary of major findings in this study:

1. Self-designed garments with inward facing pleat centered on and along the upper vicinity of the breast were the most preferred while garments with a form of closure using zipper at the centre back where the least desired.
2. The acceptability level of the five specimen garments were considerably high with the highest acceptability recorded for the third specimen.
3. The unique features of the specimens were assessed to be high too with the first specimen adjudged as having the most unique feature.
4. All the specimen garments were considered to be comfortable with breastfeeding mothers with the high comfort rating given to the second specimen.

5. The five specimen garments were appreciated by breastfeeding mothers as taking into cognizance the privacy of their bust while breastfeeding with the highest rating on comfort given to the first specimen.
6. The assessment on the fitness level of the designed and constructed garments was equally good with the highest consideration given to the first specimen for the most fitting.

4.5 DISCUSSION OF FINDINGS

The need to design and develop appropriate garments that would meet the choice of breastfeeding mothers in our society necessitated the need for this empirical research to collate breastfeeding mothers' opinion on the features that ought to make up a garment constructed for them. This study revealed that 65% breastfeeding mothers were desirous that the designing and construction of garments meant for them should be free, 60% indicated that it should have a concealed opening at bust region, while 58% opined that it should come with a slash opening. Furthermore, another 70% and 50% of respondents indicated that it should be featured with inward facing pleat and fastenings at bust region respectively while 61% revealed that the slash should have a concealed opening in gathers.

However, the desirability of these features above, garments with button in the centre front and side, closure using zippers at centre back as well as with a form of closure using snaps were not desired by the breastfeeding mothers as presented in table 4.2.5. More so, on the uniqueness of the features in the specimen garments, 80% revealed that the first specimen was highly unique and 74% adjudged the second specimen as highly unique. Here again, 78% breastfeeding mothers indicated that the third specimen was also highly unique in its features and make while 68% and another set of 70% affirmed that the fourth and fifth specimen were equally highly

unique. In as far as uniqueness is taken as a factor for acceptability; the first specimen has the highest rating of uniqueness. This is supported by Oguntona (1997), Cheng (2007) were they explained that the overall designs and constructions of garments should take into cognizance the elements of designs combined together in a harmonious form to produce something unique that will elicit interest and its usage.

There opinion was further tested by the first null hypothesis and it was found that there is a significant relationship between the unique feature of garments and its eventual usage by breastfeeding mothers. In today's world, the wearing of garments has gone beyond the function of merely a covering form remedies and the protection of a delicate organs which implied that we could wear anything. Today's world clothing takes cognizance of not only the nature of clothing but also the level of its comfort. While assessing this based on the five specimens designed and constructed, 75% revealed that the first specimen was highly comfortable, 80% indicated it was the second specimen that was highly comfortable with their nature and role of breastfeeding.

Similarly, 78% and another 68% revealed that it was the third and fourth specimen that was highly comfortable with them while 70% indicated that it was the fifth. This shows that breastfeeding mothers appreciated designed but however adjudged the second specimen as the most preferred on ratings for comfort as presented in table 4.2.8. This is inline with Sherazi (2001) and Okeke (2009) who opined that comfort is not a matter of impulse alone but also look at the convenience of the materials as well as the style of design and supported by Hollies and Goldmen (2004) and Dhinakaran et al (2011) where they stated that the absence of

unpleasantness as well as ease of body movement of heat and fluid through garments are all important factors of comfort. Thus, the result of the test on the second null hypothesis further revealed that there is a significant relationship between the designed and constructed garments and the comfort level of breastfeeding mothers.

One core reason for the usage of any design and constructed material garment whether meant as a fashion or convenient wear is its acceptability and privacy function. Acceptability in the sense, that user must first psychologically have a positive perception on the materials and privacy, in the sense that it safeguards unwanted exposure to sensitive and delicate organs of the body. The quest to assess these two basic components of the design was presented in table 4.2.6 and 4.2.9. From table 4.2.6, 60% and 25% considered the first specimen as highly acceptable and acceptable respectively while 70% and another 20% indicated that the second specimen was highly accepted and accepted respectively.

Furthermore 63% respondents with another 35% revealed that the third specimen was highly accepted as well as being accepted while 56% and 29% others respectively said that the fourth specimen also was highly accepted and accepted respectively. In the same table, 68% breastfeeding mothers and another set of 16% adjudged the fifth specimen as highly accepted and accepted. However, the third specimen was considered as having the best acceptable features. In a related pattern, while assessing the privacy level of the designed and constructed garments 80% and another 15% breastfeeding mothers indicated that the first specimen has the best privacy features. Similarly, 82% and 10% revealed that these second specimen was highly private and private respectively. Breastfeeding mothers within the range of 77% and 13%

considered the third specimen as highly private and private while 76% and another set of 13% breastfeeding mothers indicated that it was the fourth specimen that was also highly private and private considerably. Finally from table 4.2.9, 70% of breastfeeding mothers and another 20% assessed the fifth specimen as highly private and private.

Based on this, it was however discovered that the first specimen was the one with the highest rating on privacy. In line with Gough (2008) findings that breastfeeding need not fear of exposing their bust in the full glare of the public because the brassier section of the garments flexes shrinks and allows mothers the ease to bring out their bust and breastfeed their young ones and supported by Thurrow (1998) who opined that for any garment to be accepted, it must meet up with the basic factors of design for the person or group it is intended for. Consequently, the test result of the third null hypothesis clearly shows that there is a significant relationship between the acceptability of the designed garment and the privacy level of mostly breastfeeding mothers.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter presents the study summary, conclusion, recommendations and suggestions.

5.1 Summary

This study titled “Acceptability self-designed and constructed garments for convenient breastfeeding among women in Taraba State” sampled 100 respondents. The study was presented under five chapters hereby summarized below. The study started with the background of the study, statement of the problem and objectives of the study. The statement of research questions and hypotheses were presented. The significance of the study as well as the assumption and definition of the study. The detailed presentation of the related literature review as well as conceptual framework of the studies. Empirical studies were also considered. It then move onto the presentation of research methodology which included the research design, population, sampling and sampling technique, instruments for data collection, pilot study and reliability of the instrument, procedures for data collection and analysis.

The research gave the detailed data analysis, presentation of results, discussions and summary of major findings, of the respondents views on their biodata distribution, opinion on research questions and the testing of research hypotheses and summarized the active five chapters of the study, concludes the study with major findings for the research questions, gave appropriate recommendations as well as suggested studies for further.

5.2 Conclusion

1. The study on the acceptability of self-designed and constructed garments for breastfeeding mothers in Taraba state was borne on the need to find appropriate garments that would be acceptable to breastfeeding mothers in all ramifications. Through this study, the research find that most breastfeeding mothers desired garments with inward facing pleat centered on and along the upper front in the vicinity of the breast and least desired garments with closure using zipper at the centre back.
2. Furthermore, the study discovered that the third specimen was the most accepted among breastfeeding mothers. Specimen 1 was adjudged as having the most unique features and specimen 2 was considered the most comfortable. Subsequently, specimen 1 again was said to have addressed the issue of privacy in public place while the same specimen 1 was revealed to be the most fitting.
3. It is suffice to state that all the garments specimens had a considerable level of acceptance among breastfeeding mothers in one varied degree or the other as none was rejected. Thus, we conclude by stating that the extent to which a designed and constructed garment would be acceptable is directly related to its unique, comfortable, privacy and fitting features. Therefore, there is a great significant difference between the garments and the variables investigated among breastfeeding mothers.

5.3 Recommendations

The study recommends the followings:

1. Designers as well as seamstress should consider to develop or construct more garments for breastfeeding mothers that have garments with inward facing pleat centered on an along the upper front vicinity of the breast.
2. Designers should take into cognizance the comfortable levels, uniqueness, fitting as well as the privacy aspects of the breastfeeding mothers before developing and constructing garments for them.
3. On the rating of the specimen as most desired, highly acceptable, unique, comfortable, private and fitting, developers and fashion designers should be encouraged to liaise with research bodies like the department to find out what women wants and subsequently produce garments that is befitting their nature.
4. There is the need to always undertake an experimental survey of this nature from time to time to enable designers and fashion developers gather first hand information on the fashion needs of the women mostly breastfeeding mothers before any production is made for them.

5.4 Suggestion for further Studies

The research suggested that a study of this nature should be carried out among singles and mothers continuing their education as well as working class mother in baby friendly public institutions.

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APPENDIX I

Home economics Section,
Dept of Voc. & Tech. Educ.,
Faculty of Education,
A.B.U – Zaria.
Date:

Dear Respondents,

REQUEST TO FILL QUESTIONNAIRE

I am a postgraduate student of Home Economics in the Department of Vocational and Technical Education, Ahmadu Bello University, Zaria. I am undertaking a research on Designed and Constructed Garment for Breastfeeding Mothers.

I hereby request you to complete the attached questionnaire. Your response will immensely help me in this research. The information will be treated as confidential and will be used only for the purpose of the research.

All questions are based on individual opinion and personal experience. Please be frank and accurate as possible to enable the researcher to get valid information.

Thank you for your cooperation.

Yours Faithfully,

Elijah, Rahaba Akombo
(M.ED/EDU/47946/05-06)

APPENDIX II

BREASTFEEDING WOMEN IN TERTIARY INSTITUTIONS IN TARABA STATE

SECTION A: BIODATA

Instruction: Tick the one applicable to you

1. Age (in years)
 - a. 15-19
 - b. 20-24
 - c. 25-29
 - d. 30-34
 - e. 35-40
 - f. 40 and above

2. Highest Educational Qualification
 - a. Primary education
 - b. Secondary education
 - c. Post secondary education
 - d. University
 - e. Others (specify)

3. Present Occupation
 - a. Lecturer
 - b. Health personnel
 - c. Accountant
 - d. Cleaner
 - e. Secretary

SECTION B

Instruction: Kindly indicate by ticking (√) Yes or No the features of garments used by women in Taraba State.

FEATURES IN GARMENTS

S/N	Features	Responses	
		Yes	No
1	Loosely fitted blouse		
2	Tight fitted blouse		
3	Blouse with pocket		
4	Gathered garment from neckline		
5	Strap sleeve blouse		
6	Front embroided fitted garment		
7	Pleated blouse at waist		
8	Kimono sleeve garment		
9	Flare garment		
10	Garment with conspicuous facing		
11	Gathered garment at waist region		
12	Garment with buttons at the neck region		

SECTION C

Kindly indicate the desirability level of the features in Specimen 1 designed and constructed garment for breastfeeding mothers in Taraba State.

Keys: **HD-Highly desirable (5), D-Desirable (4), UD-Undecided (3), FD-Fairly desirable (2) and ND-Not desirable (1)**

S/N	Features	Level if desirability				
		HD	D	UD	FD	ND
1	Garment should be free.					
2	Garment should have concealed opening in invited pleats at bust region.					
3	Garment with slash opening.					
4	Garment with inward facing pleat centred on and along the upper front in the vicinity of the breast.					
5	Garment with fastenings at bust region.					
6	Garment with conceal slash opening in gathers					
7	Garment with button in the centre front and side					
8	Garment with a form of closure using zipper at the centre back.					
9	Garment with a form of closure using snaps.					

SECTION D: ACCEPTABILITY OF SELF- DESIGNED AND CONSTRUCTED GARMENT FOR BREAST FEEDING MOTHERS

Keys: **HA-Highly Acceptable (5), A-Acceptable (4), UD-Undecided (3), FA-Fairly Acceptable (2) and ND-Not Acceptable (1)**

Variables/ specimen	HA	A	UD	FA	NA
Specimen 1					
Specimen 2					
Specimen 3					
Specimen 4					
Specimen 5					

SECTION E: UNIQUENESS OF SELF- DESIGNED AND CONSTRUCTED GARMENT FOR BREAST FEEDING MOTHERS

Keys: **HU-Highly unique (5), U-Unique (4), UD-Undecided (3), FU-Fairly unique (2) and NU-Not Unique (1)**

Variables/ specimen	HU	U	UD	FU	NU
Specimen 1					
Specimen 2					
Specimen 3					
Specimen 4					
Specimen 5					

SECTION F: COMFORTABLE LEVEL OF SELF- DESIGNED AND CONSTRUCTED GARMENT FOR BREAST FEEDING MOTHERS

Keys: **HC-Highly comfortable (5), C-Comfortable (4), UD-Undecided (3), FC-Fairly comfortable (2) and NC-Not comfortable (1)**

Variables/ Specimen	HC	C	UD	FC	NC
Specimen 1					
Specimen 2					
Specimen 3					
Specimen 4					
Specimen 5					

SECTION G: PRIVACY OF SELF- DESIGNED AND CONSTRUCTED GARMENT FOR BREAST FEEDING MOTHERS

Keys: **HP-Highly private (5), P-Private (4), UD-Undecided (3), FP-Fairly private (2) and NP-Not private (1)**

Variables/ Specimen	HP	P	UD	FP	NP
Specimen 1					
Specimen 2					
Specimen 3					
Specimen 4					
Specimen 5					

SECTION H: FITNESS LEVEL OF SELF- DESIGNED AND CONSTRUCTED GARMENT FOR BREAST FEEDING MOTHERS

Keys: **HF**-Highly fitting (5), **F**-Fitting (4), **UD**-Undecided (3), **FF**-Fairly fitting (2) and **NF**-Not fitting (1)

Variables/ Specimen	HF	F	UD	FF	NF
XSpecimen1					
Specimen 2					
Specimen 3					
Specimen 4					
Specimen 5					