

A STUDY OF THE RELATIONSHIP BETWEEN
NURSING CARE AND OTHER FACTORS AND
THE SUCCESS OF BREAST FEEDING

by

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A THESIS

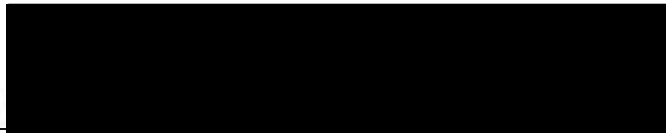
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TABLE OF CONTENTS

CHAPTER	<u>Page</u>
I. INTRODUCTION	1
Introduction to the Problem	1
Statement of the Problem	3
Justification of the Study	4
Definitions	5
Assumptions	6
Limitations	7
Research Design	8
Overview of the Report	12
II. SURVEY OF LITERATURE AND RELATED STUDIES	13
Introduction	13
History of Infant Feeding	13
Factors Related to Breast Feeding	20
Discussion of Related Studies	26
Summary of the Literature Reviewed	36
III. REPORT OF THE STUDY	38
Introduction	38
Procedure	41
Analysis of Data	45

CHAPTER	<u>Page</u>
IV. SUMMARY, FINDINGS, CONCLUSIONS AND RECOMMENDATIONS	80
Summary	80
Findings	81
Conclusions	83
Recommendations	84
BIBLIOGRAPHY	87
APPENDIX	92
A. INTERVIEW GUIDE	92
B. NURSING CARE PLAN	94
C. VISUAL AIDS	96
D. HOW THE NURSE CAN HELP THE BREAST FEEDING MOTHER	97
E. RAW DATA	98

LIST OF TABLES

Table	Page
1. Frequency Distribution of Thirty Patients Within Groups of Maternity History.	47
2. Month Prenatal Care Started and Month of Decision to Breast Feed as Reported by Thirty Study Patients.	49
3. Sources of Prenatal Preparation for Breast Feeding Identified by Twenty-four Study Patients in Experimental and Control Groups.	51
4. Responses of Thirty Patients According to Two Groups Regarding Their Maternal Attitudes toward Breast Feeding.	53
5. Comparison of Findings in Newtons' Study of Maternal Attitudes with Findings Obtained in this Study.	56
6. Course of Lactation in Thirty Study Patients Compared with Stated Attitudes of Patients' Husbands and/or Families.	58
7. Distribution of responses of Thirty Study Patients Regarding Assistance Given by Nursing Staff with Breast Feeding.	61
8. Birth Weights of Infants of Thirty Study Patients.	64
9. Types of Medical Supervision to be Sought for Infants of Thirty Study Patients.	66
10. Duration by Days of Breast Feeding of Thirty Study Patients.	67
11. Primary Reasons for Continuing Breast Feeding as Expressed by Fourteen Women Still Breast Feeding Three Weeks after Initial Interview.	69

Table	Page
12. Primary Reasons for Discontinuing Breast Feeding as Expressed by Sixteen Women who had Discontinued Prior to the Second Interview.	71
13. Responses of Thirty Patients Regarding Desire to Breast Feed Again.	79

LIST OF FIGURES

Figure	Page
1. Comparison by Groups of Responses of Thirty Study Patients Indicating Month of Pregnancy in which Decision to Breast Feed Was Made.	50
2. Course of Lactation in Twenty-six Women Who Expressed Positive Attitudes Toward Breast Feeding.	55
3. Course of Lactation in Study Patients as Related to Whether or Not They Felt Nursing Staff had Provided Them with Assistance.	63
4. Comparison of Groups I and II According to Number of Days of Breast Feeding.	68

CHAPTER I

INTRODUCTION

Introduction to the Problem

Breast feeding, it has been observed, gets lip service from everyone but the baby (45).

How accurate this tart statement is in light of the condition of natural feeding in the United States. In a society where doctors, nurses, nutritionists and parents readily agree that breast feeding is the normal, natural way to provide babies with nourishment, there is, in reality, a minority of women actually doing it.

Connolly, Meyer and Richardson, acknowledged authorities in the field of breast feeding, agree that only one to two out of five women are nursing their babies at discharge from the hospital; the number drops even lower after discharge (8, 30, 43).

Fifty years ago breast feeding was the rule rather than the exception (8). In the twenties and thirties, years of rapid build-up after a world war and followed by a period of depression, mothers began to give up the thought of breast feeding (40, 44). The baby bottle became a status symbol; the higher her socio-economic class, the less the chance that a woman was nursing her baby (19, 44). The poorer woman nursed out of economic need rather than because of a

desire to do so or an understanding of the benefits she provided both her baby and herself. Since about 1950 the practices have been noticeably reversed. Guthrie and Guthrie have demonstrated that today's nursing mother is more likely to have a college education or to be near the top of the socio-economic class levels (14).

Opponents of breast feeding point out that fifty years ago breast feeding was in truth the safest method of infant nourishment; but today's ready availability of safe, simple infant foods provides the modern independent mother with both ease and peace of mind concerning the preparation and administration of her baby's food (30, 31). Breast feeding, it is argued, is passe, frustrating, inconsistent. The mother can quickly ascertain how much milk her baby takes from his bottle; how can she know how much he takes from the breast?

From the medical standpoint breast milk, although acknowledged to be superior to cow's milk and other formula preparations (31) is only provided by a process which causes the mother to have many questions with which to burden her doctor. Too often the physician takes the easier alternative of providing the mother with a formula and instructions for its preparation and administration (1, 9). This invariably results in fewer night calls from mothers who desire assistance with breast feeding.

Nurses, too, find it easier to instruct the mother in bottle

feeding. R. James McKay, Jr., M.D., comments on the fact that many nurses "...interfere with successful lactation by impressing the mother with her own inadequacy, ignorance and incompetence... and by generally discouraging the mother...by making the whole process difficult and unpleasant" (57).

Statement of the Problem

The fact remains, however, that some mothers do initiate breast feeding and some are successful. Authorities are beginning to seek answers to some of the questions regarding this type of infant nourishment. Why do so few mothers initiate breast feeding? How important is the attitude of the mother toward this type of feeding? How does the attitude of the doctor and the nurse influence the success of breast feeding?

The problem presented in this study may be stated as follows:

One factor felt to be influential in the success of breast feeding is the care provided by the nurse to the lactating mother in the hospital shortly after delivery. Other factors concern the mother's preparation and the attitudes of the mother and her family. It can be hypothesized, therefore, that encouraging and supportive nursing care has a positive influence on the ultimate success of breast feeding and that positive attitudes and adequate preparation are also influential.

Purposes of the Study

The study was made for the following reasons:

1. to determine the type of assistance provided the thirty study patients by staff nurses as expressed by the patients;
2. to determine the effect of additional planned nursing care on the success of breast feeding of the fifteen study patients in the experimental group as related to the success at breast feeding of the fifteen control patients who have not received such additional care;
3. to ascertain the type of pre-natal preparation provided to the thirty study patients;
4. to determine the expressed feelings of the thirty study patients regarding breast feeding;
5. to determine the expressed reasons for maintaining or discontinuing breast feeding in the thirty study patients.

Justification of the Study

The nurse on the post-partum unit of the maternity service plays an important role in the success or failure of a new mother at breast feeding. It is the nurse who is present when the infant is

first put to the breast. It is the nurse who observes the mother's physical and emotional condition and who can initiate steps to maintain or acquire optimal post-partum health. A hurried, disinterested, abrupt behavior may all too often lead to the mother's decision to drop breast feeding as quickly as possible. A gentle, encouraging behavior on the part of the nurse may set the foundations for a happy, successful breast feeding experience.

This study was undertaken in an attempt to demonstrate the influence and importance of nursing care provided to the mother at the time of initiation of lactation. Few studies have been done on this factor in the success of breast feeding. It is hoped that a study such as this one will be a part of an on-going investigation of factors related to the success of breast feeding.

Definitions

For purposes of this study the following definitions were adopted.

Nursing, breast feeding and lactation-- Used interchangeably throughout the study to describe the process of secreting milk directly from mother to baby (26, 31, 35).

Nursing Care Plan-- A plan devised with the assistance of local maternity nurses and from recommendations in the literature. The Nursing Care Plan is the independent variable in this study and

may be found in Appendix B.

Successful breast feeding -- The ability of the mother to maintain lactation for a period of at least two to three weeks (43, 57).

Experimental group -- The fifteen mothers who had the independent variable applied to them.

Control group -- The fifteen mothers who did not have the independent variable applied to them.

Assumptions

Several assumptions were made for purposes of this study.

1. Breast feeding is important and therefore its success or lack of success is worthy of being studied.
2. The mother who plans to breast feed will have received at least minimal encouragement and preparation. In other words, she comes to the experience with some ideas as to why she is breast feeding and how it is done.
3. The mother is interested in breast feeding; she has not been "pushed" into it against her own best judgment.
4. All of the study patients -- mothers and babies -- will be under medical supervision during the study and as such will be able to maintain optimal health or to

obtain medical care when it may be necessary.

5. The interview schedule used allows the mothers to express their opinions, ideas and attitudes on breast feeding.

Limitations

The study was limited in the following ways:

1. One hospital in the Portland area was utilized.

Emanuel Hospital was chosen because of (a) its large maternity unit; (b) its participation in the Maternal-Infant Care Project under the auspices of the Oregon State Board of Health; and (c) the variety of social and economic classes represented by its maternity patients. (Another smaller hospital, Tuality Community Hospital, agreed to participate in the study but was excluded due to the fact that no mothers meeting the criteria for the study [see below] were present on the post-partum unit during the period of the study.)

2. Thirty mothers breast feeding for the first time were chosen as study patients. The women were chosen on the basis of their presence on the maternity units during the time the researcher conducted the interviews.

3. The thirty mothers were alternately assigned to one of two groups, fifteen in the control group and fifteen in the experimental group. No attempt was made to match pairs in the two groups.
4. Due to the time element the success of breast feeding was assessed three weeks after the initial interview in the hospital. It was felt that nursing mothers would have established a milk supply, a schedule and a specific attitude toward breast feeding by the end of three weeks and success could be evaluated by then.

Research Design

Sources of Data

The primary sources of data were responses obtained from the thirty study patients through the use of an interview schedule.

The secondary source of the data was that information obtained from literature related to breast feeding and infant nutrition.

Procedure

The steps involved in the development of this study are described as follows:

1. The literature was searched for references on breast

feeding, infant feeding techniques, the nursing mother and related statistics, studies, and designs in all areas. From this literature it was anticipated that a frame of reference would be established. A historical review of breast feeding was attempted with past and present trends noted. Related statistics and studies were noted as a means of further illustrating the problem.

2. Unstructured interviews were arranged with local authorities in the field of breast feeding and breast fed infants.

These assisted the investigator in three ways:

First, they contributed to the investigator's understanding of and insight into general problems and specific factors influencing breast feeding.

Second, they assisted the writer in setting up operational definitions for both "nursing care plan" and "successful breast feeding".

Third, they helped to establish a good rapport so as to gain co-operation in the study.

Interviews were sought with

- a) Miss Marlys Raynes and Miss Lorraine Nelson,

Instructors in Maternity Nursing, University of Oregon
School of Nursing;

- b) Mrs. Gale Rankin, Director of Nursing Services,

Multnomah Hospital;

c) Mrs. Marzenda McComb, LaLeche League of Portland;

d) Miss Berniece Peterson, Maternal and Child Health

Consultant, Oregon State Board of Health;

e) Mrs. Elizabeth Rambousek, Maternal and Infant Care

Project Coordinator, Emanuel Hospital;

f) Mrs. Mildred Corlett, Instructor in Obstetrical

Nursing, Emanuel Hospital School of Nursing;

g) Miss Esther Jacobson, Director, School of Nursing

and Nursing Service, Emanuel Hospital.

3. A nursing care plan was developed which dealt with supportive, educational and actual nursing techniques in the specific area of assisting with the initiation and maintaining of breast feeding.
4. A device to measure the effect of the nursing care on the success of breast feeding was developed.
5. The nursing care plan and the data collecting device were submitted to a group of professional nurses. They were requested to evaluate the two in terms of content and format. Revisions were made where necessary.
6. A pilot study was carried out at Multomah County Hospital to determine the feasibility of the study and the data collecting device. The results of the pilot study were analyzed,

and revisions in the devices were found to be unnecessary before proceeding to the main study.

7. The main study was then initiated at Emanuel Hospital. Thirty mothers breast feeding for the first time, present on the maternity units during the time of the interviews and from the same maternity population were selected for the study. The women were alternately assigned to the experimental or the control group. All thirty women were interviewed according to the interview schedule (see Appendix A), part I. These interviews took place two to three days after delivery.
8. The nursing care plan (Appendix B) was applied to the fifteen women in the experimental group. This was done immediately after the interview. The women in the control group did not receive the nursing care plan. All of the study patients were also under the care of the maternity nursing staff. The staff did not know which patients had been assigned to the experimental group, however.
9. A second interview was conducted with all thirty study patients by telephone three weeks after the first interview. This interview was done to determine the success or failure of breast feeding and the reasons for discontinuing or continuing breast feeding. The fifteen patients in the

experimental group were also asked to evaluate the additional nursing care they received per the Nursing Care Plan as related to their own breast feeding experiences.

10. When all thirty women had been interviewed twice, the data were categorized, tables and figures constructed and the findings interpreted and discussed.
11. Summarizations of the study were made, conclusions were drawn, and recommendations for further study were noted.

Overview of the Report

Chapter one contains an introduction to the general problem, a statement of the problem researched, and the purposes of the study. This chapter also sets forth the assumptions and definitions for this study as well as the procedure used to carry out the study. Chapter two includes a review of the related research and the current literature in the broad field of breast feeding. A historical review of infant feeding is set forth as well as a discussion of research studies relating to breast feeding, the nursing mother, and the breast fed baby. Chapter three describes the methodology and findings of the study with an interpretation of the same. The final chapter of this report includes a summary of the study, the conclusions drawn, and recommendations for further study.

CHAPTER II

SURVEY OF LITERATURE AND RELATED STUDIES

Introduction

The literature related to this study has been divided into two groups, a brief history of infant feeding with special reference to breast feeding and a discussion of the physical, physiological and emotional aspects of breast feeding for both mother and infant. Related studies dealing with trends in infant feeding and factors affecting the decision to breast feed and the subsequent success or failure of lactation will then be discussed.

History of Infant Feeding

The history of infant feeding down through the ages is a fascinating story. Periods of luxury have also been periods during which women have sought means other than breast feeding for infant nourishment. Meyer notes Gibbon's grim reminder that prominent on the list of the causes of the fall of the Roman Empire is the early dissolution of a civilization when the nursing of young becomes unfashionable (30, 31). Rovers and conquerors along the Mediterranean Sea or Mare Nostrum held in high esteem the captured slave who was a potential wet nurse.

For centuries mothers and potential mothers have been admonished to suckle or nurse their infants. The Persian physician and philosopher Avicenna in the eleventh century A.D. encouraged breast feeding:

Whenever possible the mother's milk should be given, and by suckling. For this is the ailment of all others most like in substance to the nutrient material which the infant received while in the womb--the menstrual nutrients of the mother. It is these which are changed into milk after parturition and such milk is better adapted for the infant (26).

For many years it was thought that the uterine blood supply which nourished the fetus before birth was channeled to the breasts and--as breast milk--nourished the infant after birth (26, 31). DaVinci described such channels from the womb to the breasts. Tansillo, a sixteenth century Italian soldier and poet wrote in his poem "The Nurse"

... To shape and strength the unconscious embryo grows
But when tis born then Nature's secret force
Gives to the circling stream another course (26).

The nursing mother has long been honored. The Roman goddess Juno is thought to have sprinkled her milk across the sky thus creating the Milky Way (10). Paintings and sculpture have depicted the classic nursing pose, the mother sitting with the infant supported on her raised knee (40). The wet nurse, the woman who became a substitute mother to the infant, was also held in high esteem. In fact, she was so honored and in such demand that a woman found it

profitable to have a child of her own, place him in a "baby farm" or orphanage, and then hire herself out as a wet nurse. This was common even with the advent of the baby bottle or "pocket nurse" as it was soon called (43).

Until only recently it was no trite saying that the woman's place was in the home. She married early, was often pregnant, and breast fed her children because she know of no other way to feed them or was financially unable to provide them with substitute milk. In such a situation it was the breast fed babies who survived. Substitute feeding in those days all too often resulted in "cholera morbus," "cholera infantum," "summer complaint," "colitis," or some other intestinal disturbance with some other fanciful name. These diseases claimed almost all who were not nourished on breast milk (44).

At the turn of the century breast feeding was the rule, bottle feeding the exception (8, 44). A gradual change was beginning, however. Advances in medicine and public health reduced the infant death rate (43). If the mother could not nurse her own child artificial feeding was begun. Slowly it came to be obvious that the mother was not always to be confined to the home. Industry, commerce, the professions, and higher education for women all made their bids and offered opportunities. Bottle feeding--difficult, intricate and expensive as it was--provided women with infants and young children

with the chance to free themselves from the "slavery" of the four walls of their homes. Gradually, the young mother found that bottle feeding was no longer just a passing fad or fancy. Breast feeding came to be looked down upon by the "advanced thinkers" of the time. There were many who claimed that breast feeding was fine for the sturdy woman not far removed from the farm; but that the more sophisticated city woman would never be able to maintain enough milk anyway so that bottle feeding was best for her (43).

By this time the safety of bottle feeding was evidencing itself. Meyer lists several factors which led to the success of artificial feeding (31).

1. Modern methods of canning and preserving of food
2. Modern plumbing
3. Screening against flies
4. Sewage disposal and sanitary engineering
5. Artificial ice
6. Mechanical refrigeration
7. Pasturization and refrigeration of milk
8. Large milk supplies
9. Concern for infant welfare
10. Improvement of transportation
11. Acceptance and execution of solids in early diets
12. Increased public health skills and interests

13. More efficient and accepted hygiene.

In 1919, Sedgwick started a movement which was intended to disprove the idea that only the country woman could breast feed (43). Utilizing the technique of manual expression he taught medical students, physicians, and mothers in Minneapolis that almost every mother could nurse her baby provided she and her physician desired it and learned the technique. This was followed up in 1925-1926 by a similar demonstration in Nassau County, New York, with a group of so-called sophisticated city women (43). The state department of health produced amazing results and showed objectors of breast feeding that it could be done in urban areas. Even better results were obtained when the demonstrations were done in several smaller cities throughout the state.

Dr. Robert B. Connolly points out that the ready availability of good infant foods happened concurrently with the fact that women were allowed to vote and could leave the home to work. Grandmother stayed home and fed the baby (8). Under such circumstances the transition from breast to bottle feeding was perhaps inevitable.

With the advent of the depression, bottle feeding became a status symbol and was socially accepted. Breast feeding was confined to the lower classes out of necessity rather than in an attempt to provide the best possible infant nutrient (19, 44). The Second World War again took the mother out of the home and reduced the

acceptability of breast feeding (19). The practice of sending the mother and baby home from the hospital less than a week after delivery also led to a decrease in breast feeding (8, 18, 30). The true breast milk generally comes in at three to five days, just as the mother was leaving the hospital. The mother's first few days at home are generally ones of fatigue, anxiety and nervousness over the condition and care of her infant and the mother's own ability to breast feed. Under such circumstances the amount of breast milk usually decreases. All too frequently this was enough to discourage the mother and to inspire her to discontinue lactation and start her baby on a milk formula (1, 18). Bain's 1946-1948 studies indicated that only 38% of the nation's babies were discharged on either a breast milk or a breast milk with supplementation regime (18, 30).

Shortly after the mid-century mark, however, a significant change began to take place. More and more it was noted that the breast feeding mother was from the higher social, economic and educational classes (3, 14, 18, 36, 50, 60). In a study of 114 women attending the Family Health Clinic in Boston from 1950 to 1956, 71 or 62.3% of the women attempted to breast feed (50). One of the most significant factors in the decision of the women who attempted breast feeding was their social class--these mothers were of a higher social class than those who did not attempt to breast feed at all (50). Guthrie and Guthrie have demonstrated the

increase in breast feeding among mothers of university and professional status (14).

Levin states that the period of lactation in precivilized societies was probably upward of three years. Modern rituals of breast and baby care, however, have reduced this period to weeks. He states that in America "...not one mother in five is nursing after the lying-in period although the most intelligent and sophisticated mothers tend to favour breast feeding" (26).

In 1956, a group of young mothers gathered in a home in Franklin Park, Illinois. The purpose of this meeting was to give to new mothers and mothers-to-be the help and direction needed to enjoy the experience of breast feeding their babies. This pattern of small informal groups of mothers meeting together to learn and share experiences of breast feeding developed into a nationwide organization called the LaLeche League (23, 40, 45). Its aim is to inform mothers, nurses, physicians, and any other interested persons regarding breast feeding, its joys and its frustrations. This group has had a significant influence on the increased incidence of breast feeding in the United States (8, 31, 45, 54, 57).

Today breast feeding is not passe. Mothers are attempting to nurse their babies. To the upper class mother, breast feeding is becoming more appealing and more accepted. However, the bottle still remains a status symbol to the lower class mother. It remains

to be seen which direction the trend will take (30).

Factors Related to Breast Feeding

The Nursing Mother

For centuries women breast fed their babies with no thought other than that this was the only way to nourish their infants. It has only been recently that the benefits to the mother have come to light.

Lactation has been mentioned as being an integral part of the maternity cycle. The nursing of the baby has an effect on the return to the normal status of the reproductive functions; it has a direct stimulating action on the uterus and hastens involution with a quicker return of that organ to its normal size (39).

The breasts enlarge during pregnancy as a result of the high levels of estrogen and progesterone present in the bloodstream. The duct and alveolar systems begin to develop for their lactating functions. Each breast or mammary gland is divided into twenty segments or lobes and each lobe has a duct extending to the nipple. The acini cells which secrete milk are present in the lobules of the lobes. The breast obtains the milk producing products from the blood by osmosis. Prolactin from the pituitary is responsible for the secretory function of the breasts (11, 55).

Prior to delivery, at about the third or fourth month of pregnancy, a pre-milk fluid called colostrum is formed by the cells and

stored in the ducts. This is the fluid the newborn receives and is high in protein and salt and low in fat (55). At delivery the levels of estrogen and progesterone decrease, more prolactin is secreted and the breasts are stimulated to an increased secretory function.

Whereas animal milk usually is secreted within an hour after delivery, human milk usually takes three to four days to "come in". It is during this pre-milk period that the mother is usually in the hospital and is attempting to initiate breast feeding. These are vitally important days for the new mother. If she has not nursed before, she needs the help and encouragement of the entire medical and nursing staff. Dr. Milton I. Levine points out that frequently "...many obstetricians, in an effort to discourage nursing, emphasize to new mothers the possibilities of painful abscesses " (55). Some doctors who personally find breast feeding unpleasant use "every trick in the book to discourage it" (40). A Harvard study reported in the New England Journal of Medicine concludes that

The attitude of medical practitioners, who are responsible for most of the antenatal supervision in the United States, probably accounts for the regional variation in amount of breast feeding and for its general low prevalence (50).

The attitude of the nursing staff is relevant to the success of the mother who desires to breast feed. The same Harvard study points out that nursing students get very little practical training in breast feeding techniques (50). Smith (55) points out that feeding

any infant is a component of nursing care. Either the nurse actually feeds the baby or she assists the mother in the breast feeding process. A nurse who doesn't understand the process may only increase the mother's confusion. Just as nurses who are enthusiastically supportive of breast feeding somehow help the mother to be successful, so the nurse who expresses doubt, antagonism or disgust of the nursing mother probably contributes significantly to breast feeding failure (1, 3, 5, 18, 39, 46, 48, 51, 57).

Mothers, themselves, commented on the lack of assistance and encouragement they have received in their attempts to breast feed. Lipkin (27) indicates that personal experience leads her to believe that doctors and nurses, unprepared to help the new mother, often hinder her efforts by implying that breast feeding is not worth the bother. Birchfield points out the importance of bolstering the confidence and morale of the nursing mother in assuring success (2).

In general, however, the ultimate factor in the success of the nursing mother is her own desire to nurse. Connolly has had the experience of hearing mothers say that breast feeding is fun (8). Levine points out that mothers who are eager to breast feed are usually successful (55).

The Newtons, in a study of maternal attitudes and ability to breast feed found that 74% of mothers who expressed positive

attitudes toward breast feeding were able to nurse without formula supplementation. Only 35% of those who had been doubtful and 26% of those with negative attitudes were as successful. Mothers with positive attitudes had less difficulty than did the others (38). Successful mothers also reported a higher incidence of letdown, a neurologic reflex which influences the expulsion of milk already secreted and which is currently felt to be of importance in the success of breast feeding. Mothers who successfully breast feed appear to have a high incidence of let-down symptoms (37); conversely, mothers who report numerous incidences of the let-down reflex appear to have a large amount of milk for their babies and seem to become successful with nursing (37).

The Breast-Fed Baby

Breast milk is not only the best food for the newborn infant, it may be the only food that infant can tolerate. A good example of this is the story of eleven week old David Bormet who had suffered from severe diarrhea, breathing difficulty, and convulsive seizures because he could not tolerate any formula. The Bormets' doctor suggested breast milk as the only thing that could save David. Mrs. Bormet obtained assistance from the LaLeche League in establishing a milk supply of her own (she had previously nursed her four other children but had started David on a bottle from birth) and in providing

breast milk for David until her own milk came in. David took his first breast feeding "...as if his life depended upon it--which it did!" Within days his diarrhea and other allergic reactions disappeared (54). This amazing story illustrates the importance of breast milk to a sick baby.

There are many reasons why breast milk is held to be superior to even adequate formulas. Marlow lists several important arguments for breast milk from the point of view of the infant's health:

Breast milk is more easily digested than cow's milk and is designed by nature to satisfy the needs of the human infant.

Breast milk is available at all times.

Breast fed infants have greater immunity to certain childhood diseases. Certain antibacterial and antiviral substances are believed to be transmitted in the milk which increase the infant's resistance to infectious diseases. The extent of this protection has not been proved.

Breast fed infants are less likely to have gastrointestinal disorders and food allergies in infancy. Breast fed infants are less likely to suffer from colds and severe respiratory infections" (28).

Other authorities, including Blaikley, Levin, have made similar observations (3, 26, 31, 56).

Another aspect of the benefits of breast feeding to the baby lie in the cuddling and fondling which are inherent in the nursing process. Opponents of breast feeding say the bottle feeding mother can provide just as much cuddling and warmth as the breast feeding mother. However, science has not yet devised a way to prop and leave a

breast baby! The baby at the breast soon learns to associate pleasurable experiences other than food with the nursing process. He feels the warmth and closeness of his mother, the sound of her voice and--eventually--her form, shape and presence. These all contribute to his perspective and the development of his own individuality (13, 41, 42).

The infant has a need to suck and apparently the human breast provides the proper vehicle for this sucking need (42). It is interesting to note that many breast fed babies will not suck from a bottle. It seems that the shape and form of an artificial nipple are just not adapted to the baby's mouth and sucking mechanisms (1, 13).

The Nursing Couple

As has been previously mentioned, art through the ages has continually depicted the nursing couple. The oneness of the nursing mother and her infant have always fascinated mankind.

The relationship produced through breast feeding is brief but intense. Mother and child share a rapport so complete that it can exert a profound effect on both partners. Nursing a baby is an art. Successful nursing mothers agree that the nursing process consists of three parts: the actual physical satisfaction of nursing, the baby's response to his mother, and the awareness of a unique relationship between mother and infant (40).

Discussion of Related Studies

Several studies have been done on the factors which influence either the decision to breast feed or the success of breast feeding or both. Perhaps the most famous are those done by Drs. Niles and Michael Newton. In 1950 they reported a study conducted on 127 consecutive cases admitted to the maternity units of the Hospital of the University of Pennsylvania (37). Mothers who attempted to breast feed were seen daily for the duration of the hospital stay. Detailed records were kept of the symptoms of let-down and of engorgement, fissures, and the course of lactation.

Mothers were requested to report daily on the presence or absence of the following subjective symptoms of let-down:

1. Cramps or lower abdominal pain at the time of nursing. If let-down is functioning, the oxytocic principle should be circulating in the blood stream and should cause uterine contractions.
2. Dripping from the breast opposite to the one at which the baby was nursing. Dripping is probably caused by the contents of the alveoli being forced out into the already filled milk ducts.
3. Dripping at odd times, particularly upon sight or expectation of the baby. This is probably another sign of internal pressure suddenly exerted.
4. Cessation of nipple pain after the baby has sucked for a few seconds. The sucking baby builds up a high negative pressure which may cause pain. This is lessened as let-down occurs and the vacuum is filled with milk

An objective test of the degree of let-down was made in a random sample of the breast feeding mothers. It consisted of

1) weighing the baby before and after nursing; 2) using an electrical breast pump for five minutes within ten minutes after the baby had finished nursing; and 3) using the breast pump for five more minutes two minutes after Pitocin 0.3cc was injected subcutaneously. The milk pumped out in the post-Pitocin period represented the milk that was in the breast but not made available to the baby. A low Pitocin ratio indicated that most of the milk was let down as a result of the normal stimulation of the baby's sucking and that the let-down reflex was working well. A high Pitocin ratio indicated the opposite. The Pitocin ratio was calculated in the following way:

$$\frac{\text{Amount of milk obtained after injection of Pitocin}}{\text{Total milk obtained by baby and breast pump}}$$

The results of this study indicated that the symptoms of let-down occurred more frequently in the successful breast feeders than in the unsuccessful breast feeders. Unsuccessful breast feeders had a more erratic and less complete let-down and their Pitocin ratios were significantly higher than those of the successful breast feeders.

Recommendations included the emphasis on methods which the medical and nursing staffs could utilize in promoting the let-down reflex. Physiological and psychological methods were discussed. Physiological methods included the use of the manual expression of a little milk before feeding to set off the let-down reflex. The administration of Pitocin before feeding was also suggested for use in

extreme cases; the resulting flow of milk might give the mother increased confidence in her ability to produce milk. Sucking is the primary stimulus in the let-down reflex; therefore, a self demand feeding schedule might encourage vigorous sucking which would in turn increase the degree of let-down and the amount of milk. Psychological methods recommended included the avoidance of pain, emotional conflict and embarrassment and the promotion of pleasant, restful surroundings for breast feeding so as to condition the let-down reflex to work less erratically. It is suggested that breast feeding should always take place in the same quiet place until lactation is well established. It can be seen that all of the recommendations involve education on the part of medical and nursing staff on the maternity unit.

A second Newton study dealt with the relationship of the ability to breast feed and maternal attitudes toward breast feeding (38). In this study 91 breast feeding mothers on the University of Pennsylvania maternity units were interviewed soon after delivery to ascertain their attitudes toward breast feeding, and the course of their lactation was carefully followed during their hospital stay by daily observation and questioning. Some of the questions asked about breast feeding were "How do you feel about feeding your baby?" The responses were taken down as nearly verbatim as possible and were then sorted by two independent judges. The responses were sorted into three

categories which were defined as follows:

Positive: those statements expressing desire or determination to breast feed. They included all responses saying "I will, am going to, intend to, would like to, would prefer to, etc., to breast feed" regardless of other modifying statements made about the date of weaning, past ability to breast feed, or present amount of milk.

Doubtful: those statements expressing mixed feelings. This included all those who talked of giving both breast and bottle right from the start, who avoided the personal pronoun "I" when talking about the desirability of or plans for breast feeding, who expressed indifference about breast feeding and those who used "could" instead of "can" in connection with the plans to breast feed.

Negative: those who preferred bottle feeding. This included all those who said they would prefer the bottle, or who stated they did not want or did not like to breast feed. Also included are those who did not express what they wanted to do, but who mentioned only the negative aspects of breast feeding or their ability to breast feed.

The results of this study were significant. Of the mothers who expressed positive attitude statements, 74% proved to be successful breast feeders (defined as having enough milk by the fourth day so as to make supplementary formulas unnecessary) as contrasted with 35% of the doubtful group and 26% of the negative group. The positive group of mothers also gave an average of fifty-nine grams of milk at each feeding on the fourth day while the doubtful mothers gave forty-two grams and the negative mothers thirty-five grams.

The practical implications of this study emphasized the importance of building up positive attitudes toward breast feeding in an attempt to educate women to desire wholeheartedly to breast feed. This is apparently influential in establishing an abundant milk supply.

In a nurse's study made by Roby (48) and reported by Sarto (51) 350 mothers at St. Mary's Hospital in St. Louis were divided into three groups. One group received both pre-natal and post-partum assistance with lactation. The second group received post-partum assistance only. The third group served as a control group. The nursing care involved in the first two groups emphasized

1. helping mothers learn about the lactation process and thus helping them to increase their confidence and enjoyment of breast feeding;
2. helping infants achieve proper suckling grasp;
3. manual expression of milk to soften the areola before feeding and to empty the breast completely after the feeding.

Mothers were requested to complete and return a form letter at the end of four months or when breast feeding was discontinued, whichever came first. The mothers in the control group showed a significantly shorter duration of breast feeding than did those in either of the first two groups. Prenatal preparation was not found to be more significantly important than post-partum assistance.

Recommendations involved the need for further investigation into the type and amount of prenatal and antenatal preparation for breast feeding and the need for a thorough study of the influence of the nursing staff on the success of breast feeding.

Three other studies, done by Salber (50), Brown (5) and Jackson (18) relate the importance of maternal attitudes to the choice and subsequent duration of breast feeding. Jackson (18) discusses this in terms of the mother's choice of rooming-in or nursery at the Grace-New Haven Hospital over a ten year period (1942-1951 inclusive) with 4318 study patients. The average duration of breast feeding for rooming-in mothers was 3.67 months while the average for nursery (non rooming-in) was 2.33 months. It can be said that there may be factors which influenced the choice for rooming-in or nursery care which are directly related to duration of breast feeding.

The report of the study states that in spite of the fact that the rooming-in mother appears to breast feed longer than the mother choosing nursery care for her infant, other factors besides rooming-in must be considered. It is suggested that an attitude study be made of mothers who choose rooming-in to determine if they have a more positive attitude toward breast feeding than do mothers who select other forms of lying-in care. It is also suggested that studies of maternal attitudes be made in areas where rooming-in is unavailable,

where the mother has no choice as to the type of care she and her infant receive.

Brown (5) studied fifty-five breast feeding and fifty-five bottle feeding mothers who had delivered at Mount Sinai Hospital, New York, and tested the hypothesis that mothers who elect to breast feed differ significantly from mothers who choose to bottle feed in such personality dimensions as feminine identification, affectivity, orality, aggressiveness, narcissism, and related factors affecting the ability to maintain a warm, protective and nurturing maternal attitude toward the infant. All patients were given a battery of psychological tests. Patients were interviewed in the hospital shortly after delivery then again six weeks to several months post-partum to assess the success or failure of breast feeding, feelings about bottle feeding, and the general well-being of the mother. The study also included an assessment of the attitudes of the house staff and of 109 first year nursing students from the Mount Sinai Hospital School of Nursing as regards their attitudes toward breast feeding. It was significant that most of the house staff took no interest in the problems mothers might have about feeding their infants during the lying-in period. Pediatricians in general tended to regard breast feeding as a nuisance which removed from their control the type and amount of nourishment the infant received. Student nurses in their first year of training had strongly positive attitudes toward breast

feeding.

The authors found that significant attitudinal differences existed between primiparas who chose to breast feed and those who rejected this mode. Dominant attitudes of the bottle feeding group center around the wish for more freedom, convenience of bottle feeding and narcissistic considerations. The breast feeding group was less swayed by these considerations and stressed the feeling that the baby is happier at the breast. However, since only 34% of the breast feeding group succeeded, that is, breast fed for at least six weeks, the authors concluded that the expressed attitudes did not seem to sustain the intention to breast feed in a majority of the women.

The authors point out that emotional factors and decisions regarding breast feeding occur long before the lying-in period. Therefore, their recommendations include the adoption of a policy of neutral attitudes toward breast feeding on the part of hospitals. This is somewhat in contradiction to many other studies. However, the authors note that such a policy would support and encourage mothers who are successful at breast feeding, those who try but are not successful and those who elect bottle feeding from the beginning. In other words, no mother would be made to feel inadequate because she is not breast feeding or has failed at it. Another recommendation includes further study into the psychological aspects of the decision to breast feed with special emphasis on the personality structure of

those women who fail to carry out their intention to breast feed.

Salber, et al. (50) in a study of 114 women attending the Family Health Clinic in Boston between 1950 and 1956 investigated the frequency of breast feeding and the factors affecting it. Sixty-two per cent of the women attempted to breast feed. It was found that the most important factors contributing to a high percentage of breast feeding were college education of the parents and middle or upper social class. There was also a significantly higher incidence of breast feeding in mothers who had had previous experience with child care. Most of the mothers in this study had made their decision to breast or bottle feed before delivery and there was little change in the decision thereafter. Ninety-four per cent of the mothers who wanted to breast feed did so.

Recommendations in this study include a distinct emphasis on education of medical and nursing personnel who will be dealing with the maternity patient especially during the prenatal period. It is also recommended that such personnel encourage women early in the prenatal period to try to breast feed. It is felt that the pregnant woman needs the support of a positive approach toward breast feeding which is nevertheless tempered by a realistic acceptance of the woman who honestly does not want to breast feed.

Rosalee Yeaworth, R.N., (61) presents a study of students' attitudes toward the maternal role. Sixty-one senior students and

fifty sophomore students from a baccalaureate nursing program (unnamed) were asked to respond to a questionnaire which dealt with attitudes toward various areas of the maternal role including breast feeding. The senior students had had a maternity nursing course but the sophomore nursing students had not. Sixty-eight per cent of the sophomores and seventy-six per cent of the seniors expressed a desire to breast feed. Responses seemed to indicate that the students' family backgrounds were the important factors influencing their attitudes and that increased information and knowledge did not change attitudes with strong affective components or which were closely related to one's self image. In an evaluation of the maternity nursing course, forty of the seniors felt it had a positive influence on their attitudes toward maternity nursing; five felt it had a negative influence; four believed it had no influence; and twelve felt it had both a positive and a negative influence. Seventeen students listed complaints about instructors or instruction. The author recommends an investigation into the components of maternity nursing courses. Students are given the ideal picture of family-centered maternity care in the theoretical part of the course but the actual practical experience is usually much different. This idea relates to the approach to each part of the maternal role--labor, delivery, breast feeding--as well as the approach to the entire role.

All of the studies discussed above make note of the fact that

medical and nursing attitudes influence breast feeding to some extent. Many of the studies make specific reference to the attitudes of the maternity personnel and the need for educating staff members toward a positive attitude toward breast feeding.

Summary of the Literature Reviewed

Infant feeding, especially breast feeding, has been a major concern of man through the centuries. The history of breast feeding has been associated with many social and cultural changes. The two most noticeable trends in breast feeding have occurred just after the turn of the twentieth century and again at the mid-century mark. The first trend was away from breast feeding toward bottle feeding especially in the upper socio-economic classes. After 1950 this trend reversed itself and breast feeding became more acceptable in the upper classes with bottle feeding practiced more frequently in the lower classes.

Breast feeding has been shown to be beneficial to both mother and infant. While most of the benefits are related to the physiology of lactation and the superiority of breast milk, perhaps the most important benefit of breast feeding is the relationship it establishes between the nursing mother and her baby.

Studies have shown a direct relationship between maternal attitudes and the ability to initiate and maintain lactation. They have

also demonstrated the importance of attitudes on the part of the medical and nursing staff members who deal with the maternity patient throughout the entire maternity cycle, including the prenatal, lying-in and post-partum periods. Finally, the studies have pointed up the need for education on the part of both health personnel and the pregnant women in regards to preparation for breast feeding.

CHAPTER III

REPORT OF THE STUDY

Introduction

This study was undertaken for the purpose of determining the influence of nursing care on the ultimate success or failure of lactation in thirty women breast feeding for the first time. All thirty women were patients on the maternity units of Emanuel Hospital.

Information was also sought regarding the mothers' expressed attitude toward breast feeding. A relationship has been demonstrated between maternal attitudes and success of breast feeding (38); it was felt that such attitudes would also be relevant to this study.

It was also proposed to determine the types of preparation received by the thirty mothers for breast feeding and their expressed reasons for continuing or discontinuing lactation. The above is an elaboration of the objectives as stated in Chapter I.

The data collecting device was developed in the form of an interview guide. It was recognized that a high degree of subjectivity would be present in some of the responses obtained from the study patients. This has been justified, however, in a measure of maternal emotions and success of breast feeding (38).

The interview guide (Appendix A) was divided into two parts. Part I consisted of information which was obtained from the mother

two to three days after delivery. It was further divided into sections relating to the mother, Section A, and to her baby, Section B. All of the items on Part I were asked of all of the thirty study patients.

Part II consists of information obtained from the patients three weeks after the initial interviews. Items 10 and 16 were asked of all of the thirty study patients and dealt with their success at breast feeding and their desire to breast feed again. Item 11 was asked of the women who were breast feeding at the time of the second interview and queried their primary reasons for continuing to breast feed; item 12 was asked of the mothers who had stopped breast feeding prior to the time of the second interview and dealt with their reasons for stopping. Items 13, 14 and 15 were asked only of the fifteen mothers in the experimental group and dealt with the nursing care they had received as part of the nursing care plan or independent variable. In effect, these items were an evaluation of the nursing care plan.

Anonymity was maintained throughout the study. No names were used nor was the use of names ever considered necessary. Study patients were assured of their anonymity from the beginning. Although a space is provided on the interview guide for the patients' names, each name was used only to identify the patient for the second interview. The interview guide was rendered anonymous by destroying that part of it above the dotted line. It was also found to

be particularly effective to obtain the infant's name; mothers seemed to respond more readily when their baby's names were used during the interviews.

The Interview Guide will be found in Appendix A.

The nursing care plan (Appendix B) was developed with the assistance of maternity nurses in the Portland area and from recommendations found in the literature dealing with the nursing care of breast feeding mothers (4, 17, 20, 22, 46). The plan is divided into three areas of care: Emotional Support, Physiology and Physical Technique, and Anticipatory Guidance. Emotional support dealt with encouraging the mother to express further her ideas and opinions on breast feeding; providing her with hints on relaxation, feeding schedules, and the like; and correcting misconceptions she may have had regarding breast feeding.

Physiology included a brief summary of the anatomy and physiology of the breast and the mechanism of lactation. Two visual aids were used; these are found in Appendix C. Physical technique included a discussion of the sucking and the rooting reflexes in the infant, assistance in determining the best positions for breast feeding, and a demonstration and return demonstration of the technique of manual expression. The care of the breasts of the lactating mother was also discussed.

Anticipatory guidance consisted mainly of a discussion of two

types of questions: first, those questions the mother had regarding breast feeding at home, after her discharge from the hospital; and second, questions put to the mother about specific problems which she might encounter at home. A special attempt was made to make this area of the nursing care plan as individualized as possible for each mother. Some problems were anticipated in the plan while many others were brought out by the mothers themselves.

The nursing care plan is found outlined in Appendix B; the visual aids which were used are in Appendix C and a copy of the LaLeche League pamphlet, How the Nurse Can Help the Breast-feeding Mother (22) is found in Appendix D.

Procedure

Preliminary Steps in the Procedure

Preliminary drafts of the Interview Guide and the nursing care plan were developed and presented to a group of professional nurses. Revisions were made as necessary. A pilot study was then conducted with ten patients on the post partum ward at the Multnomah County Hospital. All women met the criteria for the study. They were alternately assigned to one of two groups of five, an experimental and a control group. Initial interviews were made within three days after delivery; the nursing care plan was utilized with the five

women in the experimental group. All ten women were interviewed again three weeks after the initial interview. The pilot study was done in an effort to determine the practicality of both the Interview Guide and the nursing care plan. The statistical findings of the pilot study were analyzed to determine appropriateness for developing tables. The findings of the pilot study were not utilized in the main study. No further revisions were felt to be necessary in the Interview Guide. The nursing care plan was refined to the point of including the two previously mentioned visual aids.

Permission was obtained from both Emanuel Hospital and Tuality Community Hospital to conduct the study on their maternity wards. In both instances it was felt by the supervisory nursing staff and the doctor in charge that, since only approved nursing care was involved, individual physicians would not need to be contacted regarding giving permission for their respective patients who were included in the study. The physicians were made aware of the study, however, and were free to with-hold their patients from the study if they so desired. In no case was a patient excluded for this reason.

A final important step in the procedure, although by no means the last, was the fact that the interviewer, who also provided the nursing care outlined in the plan, found it vitally important to become acquainted with the most recent principles of providing care

to the breast feeding mother. Much literature was reviewed for this purpose; the problem was discussed with maternity nurses who would not be involved with the study; nurses were observed giving actual care. Much helpful information and assistance were obtained in this manner.

Obtaining the Data

Thirty patients on the two post-partum units of Emanuel Hospital were interviewed in the hospital over a period of two months. The patients were chosen on the basis of their presence on the units during the time the interviews were made. Each mother was alternately assigned to one of two groups. Group I, the Experimental group, consisted of fifteen mothers who received the special nursing care outlined in the nursing care plan. Group II, the Control group, consisted of fifteen mothers who did not receive the special nursing care. Mothers in both groups were interviewed within two to three days after delivery. Second interviews by telephone were then conducted with each of the study patients three weeks later. Responses to all items were obtained from all thirty study patients.

During the two months of the interviews in the hospitals it was found that Tuality Community Hospital would have to be excluded from the study. This is a small hospital in a rural area with a

maternity ward consisting of only nine beds. No patients who met the criteria for the study were present during the time of the hospital interviews. For this reason it was decided to include only those thirty patients from Emanuel Hospital in the study.

Plan for Analysis

The Interview Guide itself served as a record of the responses made by each study patient. Numerical data were transferred to a tally sheet from which separate tables and figures could be constructed. Subjective responses were recorded as close to verbatim as possible and were classified according to the criteria set up in the study of maternal attitudes done by Newton and Newton (38). The small total of thirty patients made it unreasonable to attempt a prediction of success of breast feeding from the subjective responses.

Since the study was primarily designed to demonstrate the relationship between the nursing care provided for in the nursing care plan and the success of breast feeding, the major part of the analysis was planned to be in this area. The raw data may be found in Appendix E.

Analysis of Data

Part I, Section A, The Mother

The information obtained in this section was utilized for two purposes. First, it provided a maternity profile of the thirty study patients. Second, it was used to determine the probability that the patients in both the experimental and the control groups were drawn from the same maternity population. The latter factor was important in maintaining a scientific approach to the experimental study.

Table 1 presents a tabulation of the responses made regarding the maternity history of the study patients in the two groups. The term primipara defines a woman with only one child, usually her first born; the term multipara indicates a woman who has had more than one infant born to her. Of the thirty study patients, twenty-five were primiparous, that is, each had only one infant, the result of this confinement. Only five had more than one child. Within the groups, Group I had fourteen primiparas and one multipara; Group II had eleven primiparas and four multiparas. The Chi square (χ^2) test was used to determine whether or not the two samples were in reality derived from the same population. The computation of χ^2 is illustrated with data from Table 1. The simplified method for a 2 x 2 table is employed; since N or total sample size is less than 100, the Yates correction is used. The general formula is

$$\chi^2 = \frac{N \left[\frac{(AD - CB)^2}{2} \right]}{(A+B)(C+D)(A+C)(B+D)}$$

where each letter stands for one cell in the table as shown below.

Sample Table for the Computation of χ^2

Parity	Group I (E)		Group II (C)		Column Totals
	A		B		A+B
Primiparous	14		11		25
	C		D		C+D
Multiparous	1		4		5
	A+C		B+D		N
Raw Totals	15		15		30

By substituting the figures given above into the general formula,

$$\chi^2 = \frac{30 \left[\frac{(14)(4) - (11)(1)}{2} \right]}{(25)(5)(15)(15)}$$

$$\chi^2 = 0.999$$

The critical value of χ at 5% level of confidence for a 2 x 2 table with one degree of freedom (such as the above table) is 3.841. The value obtained from the data in the table is 0.999 which is lower than the critical value at the chosen level of confidence. Therefore, the p (Probability) that the difference between the two groups regarding maternity history is due to chance alone is quite high, greater than five times out of 100.

The above formula is used with several of the items and will

be so indicated throughout the report. The null hypothesis will be rejected at the 0.05 (5%) level of confidence.

To return to Table 1, it can be noted that the difference between the two groups regarding parity is not significant; that is, there is a high degree of probability that the two samples are drawn from the same population. This also applies to the two groups in regards to gravidity. Primigravida is a term which describes a woman pregnant for the first time; multigravida describes a woman who has been pregnant more than once. It may be necessary to make a distinction here. A woman may be a primipara and a multigravida at the same time; this indicates that she has just given birth to her first live infant but has had previous unsuccessful pregnancies. This explains why there are more multigravidas in the total group than there are multiparas.

This table is the first in the series of steps which indicate that the two groups are derived from the same maternity population.

Table 1. Frequency Distribution of 30 Patients Within Groups of Maternity History.

	Frequency Distribution		Total
	Group I (E)	Group II (C)	
(1)	(2)	(3)	(4)
Primipara	14	11	25
Multipara	1	4	5
Primigravida	12	9	21
Multigravida	3	6	9

Table 2 presents a tabulation of the reported months in which prenatal care started and the months in which the decision to breast feed was made. Item 2 requested these responses from the study patients. The women were asked to state the approximate month of pregnancy in which they first sought medical supervision. They were then asked to report the month of pregnancy in which they first seriously expressed the desire to breast feed. The majority of the women, twenty-two, indicated that they first expressed the desire to breast feed this baby at their initial medical examination. Only eight stated that they had expressed their desire to breast feed after their first visit. The mean of the two groups as regards their first medical visit is two months; the mean for Group I is two months while the mean for Group II is 2.1 months. These means are so nearly identical that they verify the supposition that the two groups are derived from the same population. Since all study patients sought medical supervision prior to the end of the second trimester of their pregnancies, it was assumed that all had received adequate medical care and preparation for pregnancy, labor and delivery.

Figure 1 is a representation of a comparison by groups of the responses to the item regarding the month of pregnancy in which the decision to breast feed was made. It might appear from looking at the graph that significantly more women in Group I made the decision to breast feed during the second month of pregnancy. The mean

Table 2. Month Prenatal Care Started and Month of Decision to Breast Feed as Reported by Thirty Study Patients.

Study Patient Number	Month Prenatal Care Started	Month of Decision to Breast Feed
(1)	(2)	(3)
Group I		
2	2	2
4	2	2
6	3.5	3.5
8	1	9*
10	2.5	2.5
12	1	1
14	2	2
16	1.5	4.5
18	.5	.5
20	2	2
22	2	2
24	2.5	2.5
26	1.5	9*
28	2	2
30	4	4
Group II		
1	5	9*
3	2.5	9*
5	1.5	6.5
7	1.5	9*
9	1.5	1.5
11	4	4
13	2	2
15	.5	.5
17	2	2
19	1	4.5
21	3	3
23	2.5	2.5
25	.5	.5
27	2	4
29	2	2

*These responses were expressed in terms of the decision being made just prior to delivery.

month of this decision to breast feed for Group I is 3.23 while that for Group II is 4. The mean for the total of thirty patients is 3.61 months. A statistical computation of the difference between the two group means shows that there is no significant difference. In other words, the two groups are again derived from the same maternity population. The figure is presented to show that the two groups, although appearing different at first glance, are really very similar.

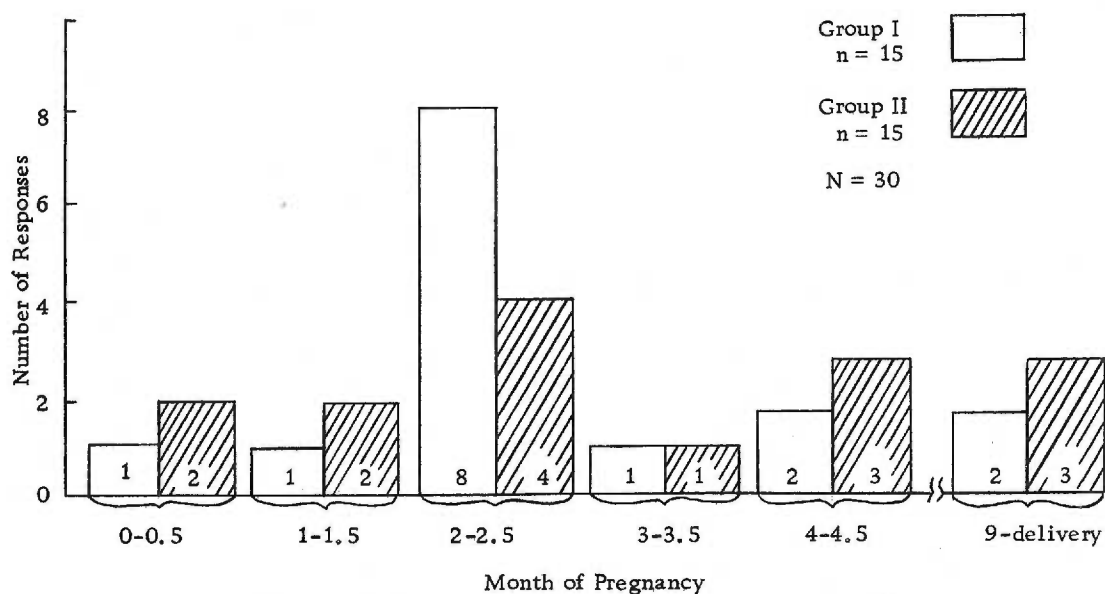


Figure 1. Comparison by Groups of Responses of Thirty Study Patients Indicating Month of Pregnancy in Which Decision to Breast Feed was Made.

Table 3 presents a tabulation of the sources of prenatal preparation identified by the thirty study patients. Item 3 on the Interview

Table 3. Sources of Prenatal Preparation for Breast Feeding Identified by Twenty-four Study Patients in Experimental and Control Groups.

Source	Group I (N = 13)	Group II (N = 11)	Totals
(1)	(2)	(3)	(4)
Literature	7	9	16
Medical/Nursing	3	5	8
Special Classes/Clubs	0	1	1
Friends	0	2	2
Relatives	6	5	11
Totals	16*	22*	38*

*Some patients specified more than one source.

Guide listed five possible sources. The basis for the sources listed was found in the literature and particularly in the study by Kariel (21) which dealt with factors influencing the obtaining of information about labor and delivery. It was felt that similar sources of information would be available for women desiring to breast feed. The source entitled Special Classes/Clubs was intended to include the LaLeche League which attempts to reach pregnant women who have expressed a desire to breast feed. It is interesting to note that only one study patient identified special classes or clubs as a source of assistance or preparation for breast feeding. There was no response to this item by six of the study patients; they stated that they had received no specific prenatal preparation for breast feeding. In light of the studies which stress the fact that preparation for breast

feeding should be initiated prior to delivery, these responses indicate that there is possibly a need to encourage antepartal education for breast feeding.

Item 4 on the Interview Guide queried the study patients regarding their own particular feelings about breast feeding. Some of the representative responses are given below.

"It brings you closer to the baby."

"It's healthier."

"I think I like it."

"I don't know how I feel about it yet."

"I just know it will be rewarding."

"I'm delighted with it!"

"I'm not all that sold on it."

"I think every woman should try it."

The responses were classified according to the criteria set up by Drs. Niles and Micheal Newton in their study on maternal attitudes and success of lactation (38). This study was discussed briefly in Chapter II and has been referred to frequently throughout this report. In their study, the Newtons classified responses to a similar question as positive, doubtful or negative. The classifications were established as follows:

Positive: those statements expressing desire or determination to breast feed. They included all responses saying "I will, am going to, intend to,

would like to, would prefer to, etc., to breast feed" regardless of other modifying statements made about the date of weaning, past ability to breast feed, or present amount of milk.

Doubtful: those statements expressing mixed feelings. This included all those who talked of giving both breast and bottle right from the start, who avoided the personal pronoun "I" when talking about the desirability of or plans for breast feeding, who expressed indifference about breast feeding and those who used "could" instead of "can" in connection with the plans to breast feed.

Negative: those who preferred bottle feeding. This included all those who said they would prefer the bottle, or who stated they did not want or did not like to breast feed. Also included are those who did not express what they wanted to do, but who mentioned only the negative aspects of breast feeding or their ability to breast feed.

Examples of each classification were given in their study. The responses in this study were few in number and were also found to be clearly enough expressed to be fairly easily classified according to the same criteria. Table 4 is a tabulation of the three types of responses according to the two groups.

Table 4. Responses of 30 Patients According to Two Groups Regarding their Maternal Attitudes toward Breast Feeding.

Response	Frequency Distribution		Total
	Group I (E)	Group II (C)	
(1)	(2)	(3)	(4)
Positive	15	11	26
Doubtful	0	3	3
Negative	0	1	1
Totals	15	15	30

$\chi^2 = 2.36$
 $p > 0.05$

It can be seen that the majority of women in the two groups expressed a positive attitude toward breast feeding. In the Newtons' study it was found that 74% of the women who had expressed positive attitudes toward breast feeding were successful. However, their definition of success, the ability to provide the baby with only breast milk by the fourth day after delivery, is different than the definition of success established for this study, that is, the ability to maintain lactation for at least three weeks. It is difficult, therefore, and perhaps even unjustified to compare the results of the two studies. In this study the patients were interviewed before the fourth day and then again three weeks later. Also, responses were not sought regarding supplementary feedings or the ability to feed the infant with breast milk only. A parallel may be drawn, though, from the responses made by the study patients at the time of the second interview when they indicated the number of days they had breast fed. Figure 2 shows the relationship between the twenty-six women who expressed positive attitudes and the number of days which they stated they had breast fed. By the end of four days twenty four women or 92% of the total group were still breast feeding; two had discontinued lactation by the fourth day. This compares somewhat with the findings in the Newtons' study in which 74% of the women with positive attitudes were successfully breast feeding by the fourth day. However, it must be continually kept in mind that this study did not

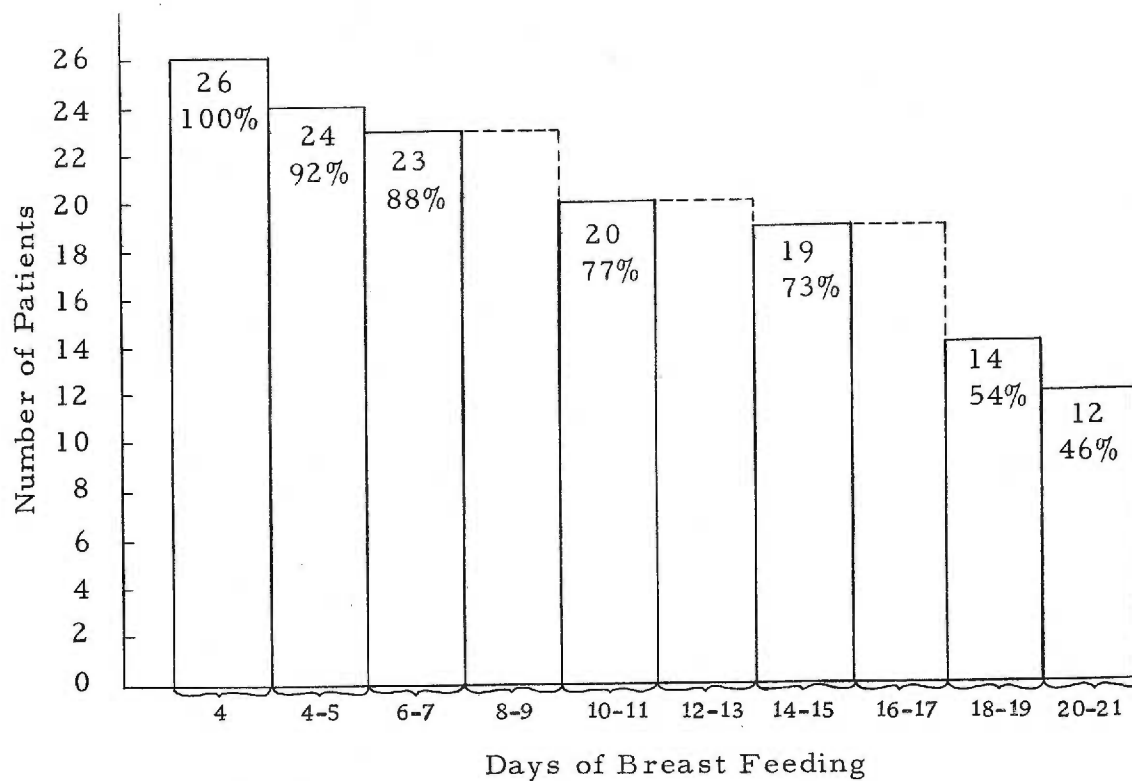


Figure 2. Course of Lactation in Twenty-Six Women Who Expressed Positive Attitudes Toward Breast Feeding.

seek to obtain any information about supplementary feedings.

If therefore, the success of breast feeding is measured in terms of continuing lactation for three weeks or twenty-one days, as in this study, then it must be assumed that the findings obtained here do not compare with the findings in the Newtons' study. In fact, as indicated in Table 5, statistical comparison of the findings of the two studies results in a χ^2 of 19.838 which indicates that the difference in the findings is significantly more than would occur by chance when using the 5% level of confidence.

Table 5. Comparison of Findings in Newtons' Study of Maternal Attitudes Toward Breast Feeding (37) and Findings Obtained in this Study.

Maternal Attitude	Course of Lactation	Frequency Distribution		Total
		Reported Study	Newtons' Study	
(1)	(2)	(3)	(4)	(5)
Positive	Successful	12	37	49
	Unsuccessful	14	14	28
Doubtful	Successful	1	5	6
	Unsuccessful	2	12	14
Negative	Successful	1	5	6
	Unsuccessful	0	18	18
Totals		30	91	121

$$\chi^2 = 19.838$$

$$p < 0.05, 0.01$$

It is interesting to note that the one study patient who had expressed a negative attitude toward breast feeding was one of the fourteen women who continued with lactation for the full three weeks. Not only was she successful with breast feeding but her attitude toward breast feeding had changed, too. When asked why she had continued to breast feed, she laughingly explained, "Oh, kid, I don't know, I just like it!" She herself admitted to being surprised at being able to maintain lactation and was unashamedly pleased with herself.

Free responses of the thirty study patients to Item 4 regarding maternal attitude toward breast feeding are found in Appendix E.

Item 5 on the Interview Guide dealt with the attitudes of the husbands and/or families of the study patients toward breast feeding. It was anticipated that some of the study patients would be single women with children out of wedlock. Mothers on the Maternal-Infant Care Project are frequently unmarried or separated or divorced from their husbands. (Four of the ten study patients in the Pilot Study were unmarried.) For this reason the question was so worded that single or married women could answer it in relation to either their husbands or their families or both. It was felt that the attitudes of husbands or families could influence the success of breast feeding. This was graphically illustrated by the patient who had stopped breast feeding at fourteen days because "My husband

just didn't like it." For the most part the responses were of a positive nature:

"He's definitely in favor of it."

"My husband and the rest of my family want me to nurse."

"They're all happy that I'm breast feeding."

"He doesn't mind one bit."

"They say that it's the best way for me and my baby."

However, there were six women who were not certain that their husbands or families were in favor of breast feeding. Of the six, only one, a patient in the experimental group, continued to breast feed for the full twenty-one days. Table 6 shows the relationship between the stated attitudes of the husbands and/or families and the course of lactation of the study patients.

Table 6. Course of Lactation in Thirty Study Patients Compared with Stated Attitudes of Patients' Husbands and/or Families.

Attitude	Course in Lactation		Totals
	Successful	Unsuccessful	
(1)	(2)	(3)	(4)
Positive	13	11	24
Doubtful	1	5	6
Totals	14	16	30

$$\chi^2 = 1.414$$

$$p > 0.05$$

The differences between the successful breast feeders and the unsuccessful breast feeders as regards a positive or doubtful attitude on the part of their husbands or families is not significant as indicated by the χ^2 of 1.414 which is lower than the critical value of χ^2 for a comparison with one degree of freedom.

Additional free responses to Item 5 will be found in Appendix E.

Item 6 queried the study patients as to the type of assistance with breast feeding they had received from the nursing staff. It was felt that this item was relevant in light of the continual references in the literature to the fact that the nursing staff is of vital importance in the maintenance of lactation in the woman who desires to breast feed. Nurses themselves who have breast fed admit to a paucity of encouragement from their fellow nurses for breast feeding. Gladys Lipkin in R.N. (27) relates her experiences as both a maternity nurse and a new mother and expresses the feeling that few maternity nurses have the knowledge or the sense of responsibility necessary to provide the breast feeding mother with the support and assistance she needs to be successful. Yeaworth (61) found that student nurses had definite attitudes toward breast feeding and that those attitudes influenced the patient care they gave. Roby's study (48) and Sarto's report and follow-up of it (51) indicate the effect the nursing staff can have on the success of breast feeding by showing the increase in

the rate of breast feeding mothers leaving the hospital over the course of only two years. The study presented by this researcher is one which was primarily intended to demonstrate the influence of nursing care on the success of breast feeding. For these reasons the responses elicited from Item 6 were felt to be extremely important to the study as they would indicate the type and to some degree the amount of nursing care which was provided over and above the special nursing care outlined in the Nursing Care Plan.

Table 7 is a presentation of the responses of the thirty study patients to the item regarding whether or not the nursing staff had provided them with assistance with breast feeding. It can be seen that slightly more than half of the thirty patients and at least half of the patients in each group indicated that they had had assistance with breast feeding by the nursing staff. However, the χ^2 for the groups as computed statistically was 0.118 which indicated that there was no difference between the groups as regards to the assistance provided by the staff.

When questioned as to how the nursing staff had assisted the study patients with breast feeding, the women responded in varying ways. The majority of the women, eleven, stated that the nurses had showed them "how to breast feed" or "how to start breast feeding". When asked to describe this further they said the nurses had told them how to hold the baby, which breast to use first, how long to

nurse. None of the study patients reported that a nurse had demonstrated manual expression or the proper positioning of the baby's mouth of the breast. Two patients reported receiving assistance with inverted nipples although one woman who stated she had received no assistance from the nursing staff had severely inverted nipples and the interviewer recommended that she talk with the staff and her doctor about nipple shields. For the most part the assistance provided by the nursing staff appeared to revolve around the ward policies for breast feeding, e. g. how many minutes to feed, which hours for feedings, and which breast to use. Free responses regarding the type of assistance provided by the nursing staff may be found in Appendix E. Table 7 summarizes the information regarding whether or not assistance was provided.

Table 7. Distribution of Responses of Thirty Patients Regarding Assistance Given by Nursing Staff with Breast Feeding.

Response (1)	Frequency Distribution		Total (4)
	Group I (E) (2)	Group II (C) (3)	
Yes	8	10	18
No	7	5	12
Total	15	15	30

$$\chi^2 = 0.118$$

$$p > 0.05$$

Figure 3 represents the course of lactation in those who had indicated that they had received assistance as compared with the course of lactation in those who said they had received no assistance. Statistical comparisons between the successful breast feeders and the unsuccessful breast feeders again reveal there is no significant difference between those who received assistance and those who did not. In other words, for the purposes of this study, the assistance or lack of assistance with breast feeding on the part of the nursing staff was found to have no influence on the success of breast feeding.

It must be acknowledged here that there is no indication that the staff provided assistance with breast feeding after the initial interview. It is conceivable that the women who stated that they had received no assistance with breast feeding obtained such assistance after the first interview. This may have been a point which should have been taken into consideration in the second interview; it was felt to be unnecessary at the time, however, but would certainly be recommended for further studies of this nature.

Part I, Section B, The Infant

The information obtained in this section was also utilized for the purpose of determining that the study patients and their infants were derived from the same population.

Table 8 shows the birth weight of the infants of the study

Assistance 18

No Assistance 12

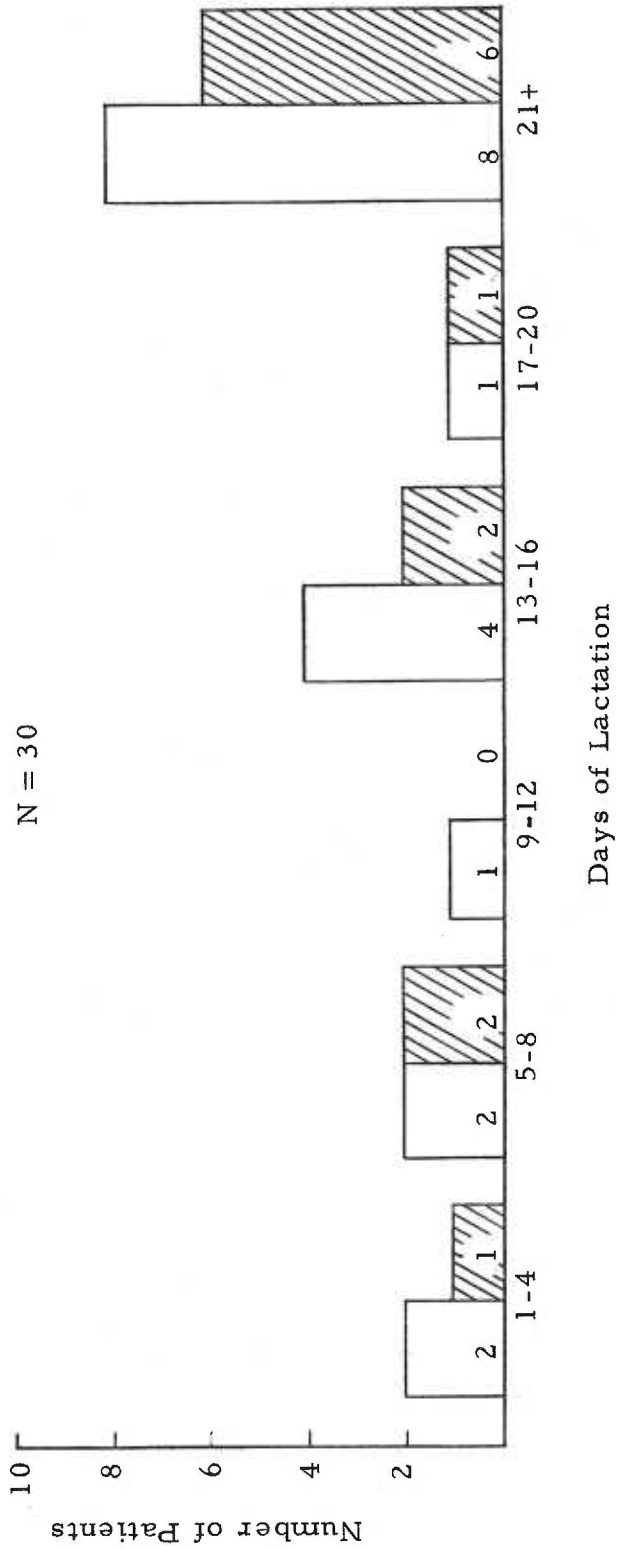


Figure 3. Course of Lactation in Study Patients as Related to Whether or Not They Felt They had Received Assistance from the Nursing Staff.

Table 8. Birth Weights of Infants of Thirty Study Patients.

Study Patient Number*	Birth Weight	
	Pounds	Ounces
(1)	(2)	(3)
1	8	9
2	7	3
3	9	11
4	8	2
5	6	1
6	8	2
7	6	9
8	11	0
9	8	15
10	6	10
11	8	9
12	8	14
13	6	3
14	9	8
15	6	11
16	8	15
17	8	1
18	8	14
19	7	15
20	6	9
21	8	0
22	7	13
23	7	13
24	7	12
25	6	3
26	6	14
27	7	0
28	7	15
29	8	6
30	7	6

Range = 6 pounds 1 ounce to 11 pounds

Mean = 7 pounds 7 ounces

*Even numbers denote Group I (E); odd numbers denote Group II (C).

patients. The range for the total of thirty infants is from 6 pounds, 1 ounce to 11 pounds. The mean for the entire group is 7 pounds, 7 ounces. The mean for the infants in Group I is 7 pounds, 11 ounces and the mean for those in Group II is 7 pounds, 3 ounces. Statistically, the difference between the two group means is not significant. Again, it can be seen that the two groups are similar and are probably derived from the same population.

Item 8 requested information from the mothers regarding the general medical condition of their infants. This information was requested to ascertain that the infants were 1) in a healthy condition and 2) able to breast feed normally, that is, that the infants had no handicap that would keep them from breast feeding. In all cases the mothers reported that the infants were healthy.

Item 9 sought to identify the types of medical supervision under which the infants would be. Table 9 presents the distribution of the types of medical supervision according to the study groups. The difference between the two groups regarding infants' medical supervision was found to be insignificant when using the formula which resulted in a χ^2 of 2.652.

Table 9. Types of Medical Supervision to be Sought for Infants of Thirty Study Patients.

Type of Medical Supervision (1)	Frequency Distribution		Total (4)
	Group I (E) (2)	Group II (C) (3)	
Pediatrician	7	10	17
General Practitioner	6	5	11
Well Child Conference	2	0	2
Total	15	15	30
$\chi^2 = 2.652$			
$p > 0.05$			

Part II, Evaluation of Success of Breast Feeding

The information obtained from this part of the Interview Guide served three purposes. First, it provided for a means of evaluating the success or failure of breast feeding in all thirty study patients and their respective reasons for continuing or discontinuing breast feeding. Second, it served to evaluate the nursing care plan and its application to the fifteen patients in the experimental group. Finally, it allowed for conclusions to be reached regarding the effect of the nursing care found in the nursing care plan on the ultimate success of breast feeding in the experimental group as compared with the success of breast feeding in the control group.

Item 10 evaluated the success of breast feeding as defined in this study, the ability to breast feed for at least three weeks or

twenty-one days, in all thirty study patients. Table 10 is a presentation of the number of days of breast feeding of each of the thirty study patients. The mean number of breast feeding days for the total of thirty patients is 15.4. The mean for Group I is 17.1 days. The mean for Group II is 13.7 days.

Table 10. Duration by Days of Breast Feeding of Thirty Study Patients.

Group I (E)		Group II (C)	
Patient Number	Days	Patient Number	Days
(1)	(2)	(1)	(2)
2	18	1	21
4	18	3	8
6	21	5	14
8	7	7	21
10	21	9	4
12	21	11	2
14	11	13	21
16	21	15	14
18	7	17	14
20	14	19	21
22	21	21	4
24	21	23	21
26	14	25	14
28	21	27	7
30	21	29	21
Range = 7-21 days		Range = 2-21 days	
Mean = 17.1 days		Mean = 13.7 days	
Range for total group = 2-21 days			
Mean for total group = 15.4 days			

Although the difference here between the two groups looks large, it is not significant when statistically analyzed. It should be

noted, however, that there is a difference. Figure 4 is a graphical comparison of the two groups and the number of days of breast feeding of the patients in each group.

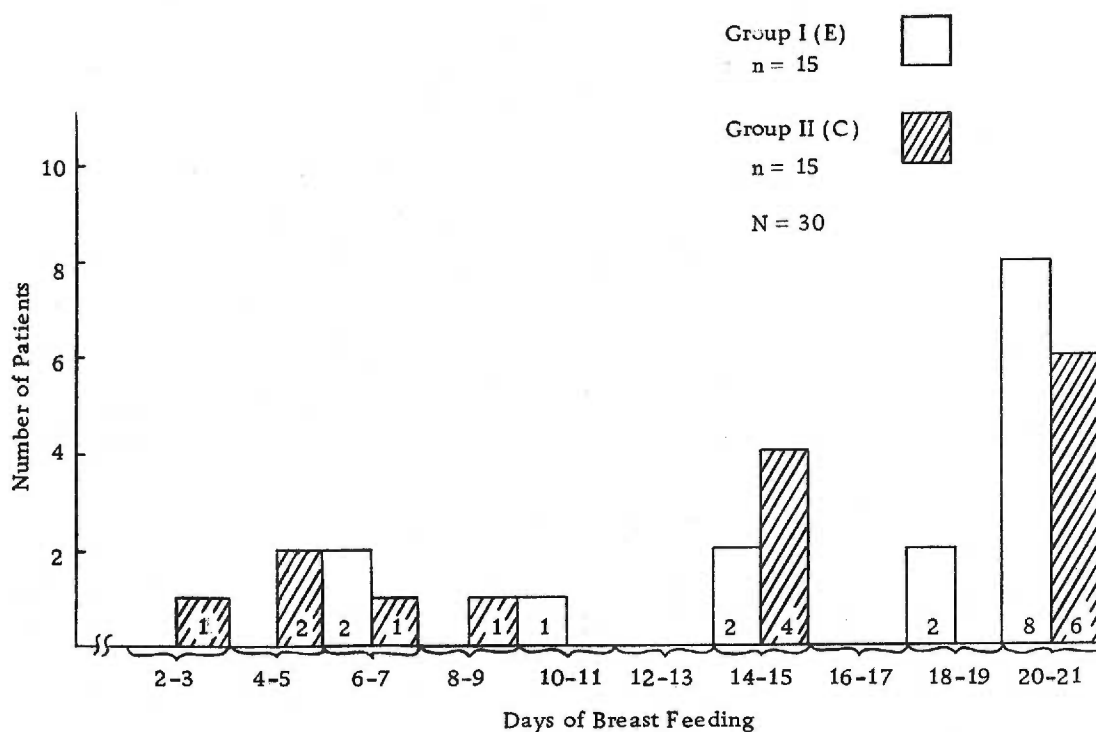


Figure 4. Comparison of Groups I and II According to Number of Days of Breast Feeding.

Item 11 dealt with the primary reasons for maintaining lactation in those women who had breast fed for the full three weeks. Statistical computations applied to the frequency data given (excluding those reasons for which no responses were given by either

group) results in a χ^2 of 0.846 which is below the critical value for χ^2 at the 5% level of confidence. In other words, the difference between the two groups of study patients as regards their primary reasons for continuing breast feeding is not significant. Table 11 is a presentation by groups of the responses of the fourteen women who were successful at breast feeding.

Table 11. Primary Reasons for Maintaining Breast Feeding as Expressed by Fourteen Women Still Breast Feeding Three Weeks after Initial Interview.

Reason (1)	Group I (E) (2)	Group II (C) (3)	Total (4)
Convenient	0	0	0
Enjoyable	7	4	11
Inexpensive	0	0	0
Other	1	2	3
	Total		14
$\chi^2 = 0.846$			
$p > 0.05$			

It is interesting that the majority of women in each group indicated that they had continued breast feeding for three weeks because they enjoyed it. Much of the literature on breast feeding encourages the mother to try it because of the sense of satisfaction, closeness and sheer enjoyment it usually brings. It would appear that such statements are verified by the reasons given by the eleven mothers

who stated they had continued with breast feeding because it was an enjoyable experience. Convenience and inexpensiveness did not seem to be important to any of the women. One of the women in Group II gave as a reason for her maintaining lactation the fact that it was expected of her by her husband and his family. The two women who gave a reason other than those listed stated that they were breast feeding because it had been recommended to them as better for both mother and baby.

Item 12 dealt with the primary reasons given for discontinuing breast feeding. The reasons given were varied; no one reason was given significantly more often than any other. More women in Group I gave as their reason the fact that they were unable to maintain their milk supply; in contrast, more women in Group II gave the reason of illness of baby or mother. Actually, this was evenly divided; two indicated an illness of the baby as the reason while two gave mother's illness. In all four instances the illnesses were relatively minor and seemed to provide rationalization for discontinuing lactation rather than real reasons based on debilitating or handicapping illness. One woman flatly stated she found breast feeding inconvenient. The four who gave unenjoyable as their reason for discontinuing breast feeding seemed to be dismayed at the lack of enjoyment they felt. The two women in Group I especially expressed the fact that they had been happily looking forward to breast feeding but had found it painful

and unenjoyable. One woman indicated that her husband had found her breast feeding objectionable to him and that he had persuaded her to stop. Table 12 is a compilation of the responses of the sixteen women who had discontinued breast feeding regarding their reasons for stopping. As indicated by the χ^2 of 5.157, the differences between the two groups regarding reasons for discontinuing breast feeding is insignificant.

Table 12. Primary Reasons for Discontinuing Breast Feeding as Expressed by Sixteen Women Who Had Discontinued Prior to the Second Interview.

Reason (1)	Group I (E) (2)	Group II (C) (3)	Total (4)
Inconvenient	0	1	1
Unenjoyable	2	2	4
Inability to Maintain Milk	4	1	5
Attitude of Family/ Friends	0	1	1
Illness of Baby/Mother	1	4	5
Total	7	9	16

$\chi^2 = 5.157$
 $p > 0.05$

John and Elizabeth Newson, in Patterns of Infant Care in an Urban Community (33) found that 72% of the women in the community of Nottingham, England, who had stopped breast feeding within two

weeks after delivery gave as reasons for stopping statements connected with the quantity or quality of the milk. In this study, 31% or 5 of the non-breast feeding mothers gave this type of reason. Another 31% gave other physical reasons, e. g. illness of baby or mother. The Newsons theorized that the majority of the reasons given were expressions of guilt on the part of the mother. For example, some mothers felt they had plenty of milk but it wasn't good for their babies or was too rich for them; other mothers felt their babies were not satisfied with the amount of milk. In this study some amount of guilt was detected in the reasons given for discontinuing lactation. Each mother seemed to be trying to show that her reason for stopping was not entirely controlled by her; each seemed to say that she would have continued to breast feed if she could but that circumstances which she could not control--her husband's objections, her lack of milk, her baby's or her own illness, even her own inability to enjoy the experience--had forced her to stop.

Items 13-15 dealt with the nursing care which had been given to the fifteen study patients in the experimental group. All fifteen patients stated that the special nursing care had helped them with breast feeding. Eleven of the women cited the demonstration of manual expression as being particularly helpful to them. In each instance they reported that they had heard of it but had not been

shown the technique by the nursing staff or by their doctors. Two women noted that the pointers on relaxation and positioning for breast feeding had helped them. One woman was particularly grateful for the discussion on nipple shields which had enabled her to initiate breast feeding and continue it for the full three weeks. Seven women had been unaware of the let-down reflex and had appreciated the discussion of it. Most of the women prefixed their specific answers with "Everything was helpful." It would seem that just having special attention paid them as breast feeding mothers had been particularly encouraging and beneficial to them.

Only five women reported problems with which the special nursing care did not deal. All of these problems concerned things that might happen in the breast feeding experience. The responses to Item 15 which dealt with the problems encountered which were not helped by the nursing care are reported in Appendix E.

With the above findings in mind, it may be worthwhile at this point to discuss the nursing care plan in some depth. The area which appears to have been most helpful to the majority of the study patients in the experimental group is that which dealt with manual expression. Sedgwick in 1919 utilized this technique as the basis for initiating successful lactation (43). The La Leche League advocates the technique and discusses it at length in literature directed at both breast feeding mothers and the nurses caring for such

mothers (22, 23, 24). Several acknowledged authorities in the field of breast feeding, Dr. Frank Richardson, M.D., Audrey Palm Riker, R.N., Dr. Niles Newton, M.D., and others, stress the need for the education of the breast feeding mother in the technique of manual expression. All feel that the technique is beneficial in both initiating and maintaining lactation. In this study it was found that none of the study patients had been taught the technique of manual expression although all of the patients had initiated lactation prior to the interviews. One would wonder whether the technique should be taught or demonstrated immediately prior to the first breast feeding experience; theoretically, it should be demonstrated during the prenatal period and the expectant mother should practice it prior to delivery. The inclusion of this technique in the nursing care plan was not only justified but possibly also helpful in contributing to the success of breast feeding for the patients in the experimental group.

Another area of the nursing care plan which was mentioned as being helpful to the experimental group was the discussion of the let-down reflex. Seven women, or about half of the group, had been unaware of the let-down reflex. Those women who have experienced let-down describe it as a tingling sensation combined with a sudden feeling of fullness and flow in the breasts. In many instances the combination of sensations is accompanied by a leakage of milk. For

the woman who is aware of what the let-down reflex is and its significance, the sensations are happily, normally accepted as a part of the total breast feeding experience. In contrast to this normal acceptance of a natural maternal phenomenon, the woman who is uninformed regarding the let-down reflex may find it to be uncomfortable, annoying and even extremely frightening; in fact, it could be influential in a woman's choice to discontinue breast feeding. Therefore, an attempt at an explanation of the let-down reflex as an integral part of the anatomy and physiology of the breasts and breast feeding should be included in the nursing care of the woman who desires to breast feed.

These two areas of the nursing care plan utilized in this study were specifically included for the reasons given above. The fact that eleven of the fifteen experimental patients commented on the benefit they derived from the demonstration of the technique of manual expression points out the need on the part of the breast feeding mother for this type of nursing care. Half of the group had never heard of the let-down reflex; a discussion of this reflex was appreciated by these women.

The nursing care plan for future studies such as this one should definitely include the demonstration of manual expression and a discussion of the let-down reflex. It should also include a section devoted to the special individual problems of the breast feeding mother

as well as some anticipatory guidance on subjects planned by the nurse providing the care.

But in order really to be helpful to the breast feeding mother, a nursing care plan should provide for more than just thirty or forty-five minutes of discussion and teaching. A superior nursing care plan to the one used in this study would probably be initiated at delivery, continue through the lying-in or hospitalization period, and include at least one or two home visits to assist the mother in adapting to her daily household routine. The nursing care plan should be flexible enough to include more or less than is planned depending on the personality, mood, health, and needs of the individual mother. Some of the problems which mothers had with breast feeding had been anticipated and were discussed with the patients in the experimental group. Other problems were not anticipated but were brought up by the patients and were discussed. Finally, some problems which seemed relatively minor, such as how to wake the baby for nursing or how to tell whether the baby was getting enough milk, were apparently not discussed as completely as possible, if at all. A nursing care plan which involved seeing the mother on a daily basis might have eliminated such problems.

Finally, the nursing care plan should include several periods spent with the mother when she is actually nursing her baby. This was not possible with all of the experimental patients in this study.

In order to completely and adequately assess the breast feeding experience on the part of the mother and baby, the nurse should closely observe the nursing couple during a feeding. Suggestions on positioning can be made at this time; demonstration of techniques of manual expression, feeding, and burping can be reinforced; the nurse can observe to a great degree the mother's emotional attitude to herself, her baby and the breast feeding experience.

The nursing care plan utilized in this study was developed carefully and with professional assistance. It must be understood, however, that no one plan is perfect; each must be built on the strengths of previous ones; each must be adapted to the setting in which it is to be used. The good parts of the plan used in this study will hopefully be retained for further use; the demonstration of the technique of manual expression, the discussion of the let-down reflex, and the special problems which are a part of the anticipatory guidance should be a part of the routine care for the breast feeding mothers on any post partum ward. Although a discussion of the anatomy and physiology of breast feeding is often helpful to the mother, this area of the nursing care plan may be unnecessary. Also, some of the problems anticipated by the nurse should be carefully considered before presenting them to mothers for discussion; for some mothers the power of suggestion may be so great that anticipated problems may become very real to them simply because such

problems have been discussed. This could possibly have been true in cases where mothers cited an inadequate milk supply as their reason for discontinuing breast feeding.

Item 16 dealt with the desire of the thirty study patients to breast feed again. Two of the maternity nurses interviewed prior to the initiation of the study indicated that this item could be an evaluation of the success of breast feeding; they both felt that a mother who had enjoyed her breast feeding experience and desired to breast feed again, could be considered to have been successful no matter how many days she had breast fed. For this reason it was determined that the relationship between the nursing care plan and the desire to breast feed again could be measured. Table 13 presents a distribution by groups of the responses to this item. It can be seen that whereas thirteen women in Group I expressed a desire to breast feed again, only eight women in Group II expressed such a desire. When the difference between the two groups is statistically analyzed, the resulting χ^2 is 4.203. The critical value for χ^2 in a 2 x 2 table such as presented above and with one degree of freedom is 3.84. Therefore, it can be seen that the difference between the two groups is significant. Something has happened to Group I that has not happened to Group II to cause this difference. The probability that the nursing care plan that was used with Group I has resulted in this difference is high; the probability that this difference is the

result of chance alone is only five chances out of one hundred. However, it would take further study with a larger number of participants to justify a wider generalization.

Table 13. Responses of Thirty Patients Regarding Desire to Breast Feed Again.

Response (1)	Group I (E) (2)	Group II (C) (3)	Total (4)
Yes	13	8	21
No	2	7	9

$$\chi^2 = 4.203$$

p significant at 5% level

CHAPTER IV

SUMMARY, FINDINGS, CONCLUSIONS, RECOMMENDATIONS

Summary

This study was designed primarily to determine the effect nursing care as outlined in a specific nursing care plan had on the success of breast feeding. The study also sought to obtain information regarding other factors which influence the success of breast feeding including 1) the maternal attitudes toward breast feeding, 2) the attitudes of husbands and other family members toward breast feeding, and 3) the amount of preparation that breast feeding mothers had had for their experience. The nursing care outlined in the nursing care plan was the independent variable used in this study. The factors listed above plus the routine nursing care provided by the nursing staff were included in the study.

Data were obtained by means of interviews held with thirty women breast feeding for the first time who were patients on the post partum units of Emanuel Hospital. Each study patient was interviewed twice: first, two to three days after delivery and second, three weeks after the initial interview. The thirty study patients were alternately assigned to the experimental or the control group. Nursing care as outlined in the nursing care plan was provided to the

mothers in the experimental group known as Group I. The interviewer recorded the responses of all thirty patients on the Interview Guides and provided the special nursing care to the fifteen patients in the experimental group.

Successful breast feeding was defined as the ability to maintain lactation for twenty-one days.

The data obtained in the interviews were tabulated to obtain the figures for the independent and dependent variables. In order to determine whether a relationship existed as regards the dependent and independent variables, the success at breast feeding and the desire to breast feed again, the differences between Group I (experimental) and Group II (control) were tested for significance by the use of χ^2 . The null hypothesis that patients were drawn from the same maternity population before and after application of the special nursing care, was rejected at $p > 0.05$ or 5%.

Findings

The findings of the study are summarized below.

1. The two sample groups were found to have been drawn from the same maternity population.
2. Prenatal preparation for breast feeding for the thirty study patients was confined mainly to that assistance obtained from literature on breast feeding or from relatives.

3. Maternal attitudes on the part of the study patients were generally in favor of breast feeding but less than half of the study patients with positive attitudes were successful at breast feeding.
4. Attitudes toward breast feeding on the part of the husband or family of the study patient were positive but seemed to have no influence on the success of breast feeding.
5. Only 60% of the study patients felt they had received assistance from the nursing staff as regards breast feeding. Routine nursing care provided by the nursing staff appeared to have no influence on the success of breast feeding.
6. The majority of successful breast feeders felt their reasons for continuing with breast feeding revolved around enjoyment of the experience.
7. The reasons given for discontinuing breast feeding were varied but illness of mother or baby or the inability to maintain a milk supply were given as the most frequent reasons.
8. The nursing care as outlined in the nursing care plan was helpful to all of the fifteen women in the experimental group. The technique of manual expression was considered to be the most helpful. All of the women who had cited

this part of the nursing care plan reported that they had not been taught this technique at any other time.

9. The nursing care provided for in the nursing care plan did not have a statistically significant effect on the success of breast feeding. However, more women in Group I than in Group II were successful at breast feeding.
10. A statistically significant greater number of women in the experimental group expressed a desire to breast feed again.

Conclusions

Based on the findings in this study, the following conclusions were drawn.

1. The purposes of the study were fulfilled.
2. Prenatal preparation for breast feeding appeared to be minimal at most and did not include those areas of education and discussion suggested by authorities in the field.
3. Nursing care provided by the nursing staff did not appear to include those practices recommended by authorities in the field of breast feeding as being beneficial to the breast feeding mother.
4. Mothers who received planned nursing care which included

recommended practices appeared to be happier with their breast feeding experience regardless of the number of days of lactation; such mothers stated they would be more inclined to breast feed after future deliveries.

5. The number of participants in this study was too small to permit generalizations; however it did appear that something happened to the Experimental group that did not happen to the Control group. There is no proof, however, that the nursing care plan actually changed attitudes and in turn contributed to success of lactation.

Recommendations

Based on the findings and conclusions of this study, several recommendations may be made.

1. In order to investigate more fully the influence of nursing care on the success of breast feeding, a study such as this but on a larger scale and in more depth is recommended. The study could include a day by day evaluation of each study patient and could provide for daily assistance with breast feeding. Follow up of study patients should be done at frequent intervals rather than only once after the

initial contact. This study with its small number of participants could be considered as a pilot for the larger study.

2. It is suggested that an investigation be made of the attitudes of maternity staff members in various settings. The amount of preparation for assisting with initiating and maintaining breast feeding should be studied.
3. Various tests for success of breast feeding have been developed. Criteria for each test should be applied to further studies dealing with nursing care of the breast feeding mother.
4. Prenatal preparation and education for breast feeding should be encouraged. Investigations should be made of medical, nursing and other health personnel who will come in contact with the pregnant woman who desires to breast feed as regards their attitudes toward breast feeding and their abilities for providing prenatal preparation.
5. Groups such as the LaLeche League should investigate methods of reaching the woman who desires to breast feed or is having problems with breast feeding. Such groups should also investigate methods for working with

the medical and nursing personnel who are caring for the breast feeding mother.

6. Finally, courses of instruction in maternity care for nursing and medical students should be investigated for the possible strengthening of attitudes and techniques dealing with breast feeding and the breast feeding mother.

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APPENDICES

APPENDIX A

INTERVIEW GUIDE

Date _____

Family Name _____

Doctor _____

Home Phone _____

Mother

1. Para _____ Gravida _____
2. Prenatal care started at _____ month
Decided to breast feed at _____
3. Preparation for breast feeding:
 - ___ Literature
 - ___ Medical/Nursing
 - ___ Special Classes or Clubs
 - ___ Friends
 - ___ Relatives
4. How do you feel about breast feeding?
5. What is your husband's/family's attitude toward breast feeding?
6. Have the nurses here helped you with breast feeding? How?

Infant

7. Birth date _____ Birth weight _____
8. General medical impression
9. Type of medical supervision:
 - ___ Pediatrician
 - ___ G. P.
 - ___ Well Baby Clinic

Breast Feeding

Date _____

10. How long did you nurse your baby?
11. Reasons for breast feeding:
- Convenience
 - Enjoyment
 - Inexpensive
 - Other
12. Reasons for stopping:
- Inconvenience
 - Unenjoyable
 - Inability to maintain milk
 - Attitude of family/friends
 - Illness of baby ___/mother ___
 - Other
13. Did the special nursing care help you with breast feeding?
14. What part of the nursing care helped you the most?
15. What problems did you have that were not helped by the nursing care?
16. Do you hope to breast feed again?

APPENDIX B

NURSING CARE PLAN

I. Emotional Support of Mother

A. Discussion of maternal attitudes and ideas regarding breast feeding.

B. Correction of misconceptions mother may have regarding breast feeding.

C. Importance of relaxation

1. for mother and baby
2. as regards the rest of the family and the home

II. Physiology and Physical Technique

A. Anatomy and physiology of breast feeding

1. as applied to mother
2. as applied to infant
3. visual aids

B. Preparation for breast feeding

1. "Bringing the milk down"
2. preparing the nipple
3. manual expression
4. putting the infant to breast, taking him off of the breast
5. nursing the infant

C. Care of the breasts

1. support
2. cleanliness
3. care of tenderness and/or dry skin on breasts or nipples

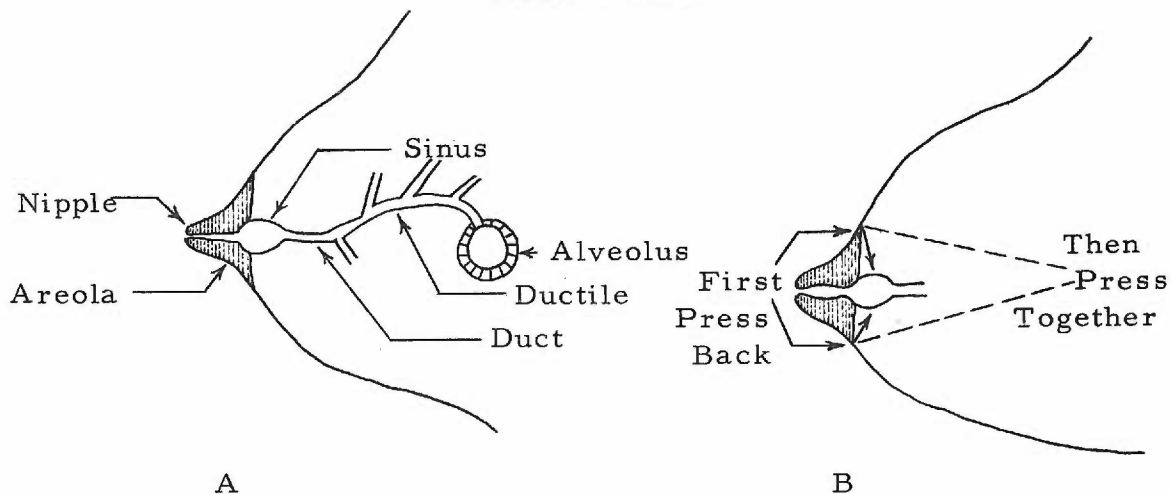
D. Positioning for breast feeding

III. Anticipatory Guidance

1. Breast feeding immediately after discharge from the hospital
2. When and where to nurse
3. Fertility and infertility while breast feeding
4. Weaning
5. Special problems
 - a. engorgement
 - b. infection
 - c. illness of mother or infant
 - d. "dripping"
 - e. missed feedings and supplemental feedings
 - f. menstrual periods
6. Additional problems as expressed by mothers

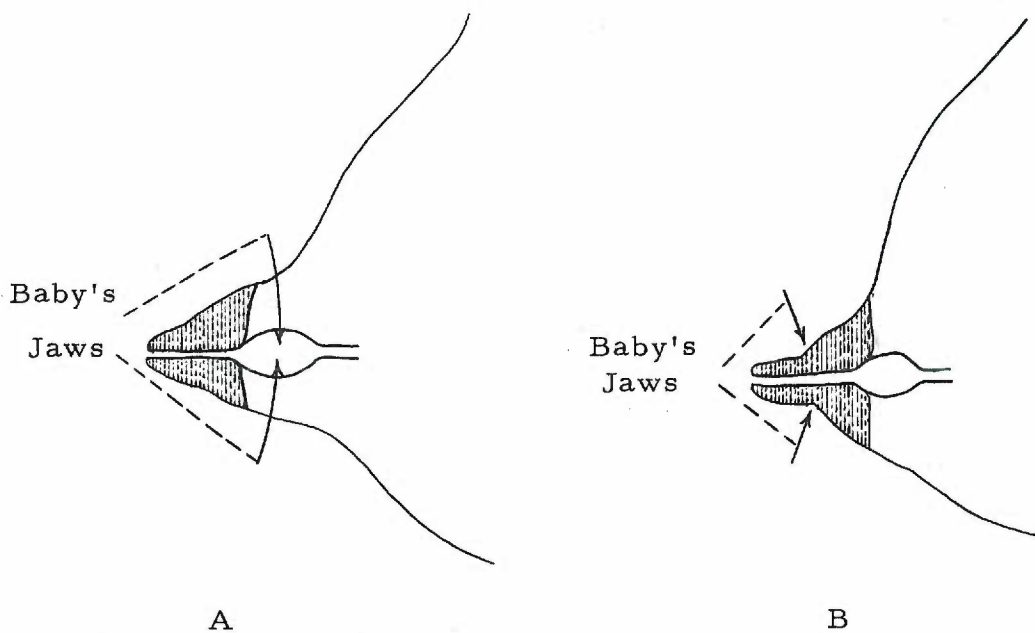
APPENDIX C

VISUAL AIDS



Visual Aid 1.

- A. Anatomy of the breast
- B. Method of manual expression showing proper means of compressing sinuses



Visual Aid 2. Positioning of Baby's Jaws for Nursing

- A. Correct position
- B. Incorrect position

APPENDIX D

*How the Nurse
Can Help
the Breastfeeding Mother*



La Leche League International, Inc.

How The Nurse Can Help The Breastfeeding Mother

No single person has a greater influence on the new mother than the nurse with whom she comes in contact in the hospital. No one is more open to suggestion or more sensitive to criticism than the mother who has just delivered her baby. Thus, your attitude toward breastfeeding has tremendous influence on her decision to nurse her baby, and the help and encouragement you give her may make all the difference in her success.

We needn't go into the advantages of breastfeeding here. They are many, for both mother and baby. No one has yet found a perfect substitute for this wonderfully modern yet old-fashioned way of feeding a baby. We hope you will have an opportunity to read our manual, *THE WOMANLY ART OF BREASTFEEDING*, for a fuller discussion of breastfeeding and all its ramifications. A number of hospitals have copies of *THE WOMANLY ART OF BREASTFEEDING* for the patients to read while they are there. The new mother will also appreciate receiving our brochure *WHY NURSE YOUR BABY?* and information on where she can get in touch with a League mother who will help her after she leaves the hospital.

The purpose of this little pamphlet is to help you, the nurse in the hospital, help the new mother with breastfeeding, getting her off to a happy start by dispelling her fears and doubts, answering her questions, and letting her know you have confidence in her ability as a woman to nurse her baby. *Encouragement, understanding, and patience* are the key words. Take a positive approach and just naturally assume that all mothers are going to want to breastfeed, and that they can breastfeed. God made women to nurse their babies; their

“physical apparatus” is going to work, and the baby will nurse, if not immediately, then very soon. It is his natural instinct.

It is helpful for you to know some of the difficulties the first-time nursing mother may encounter in the hospital, such as sore nipples, breast engorgement, or an exceptionally sleepy baby, and the best way to overcome them. This does not mean that you will tell her all about these difficulties. But be aware of their existence, and use your knowledge to help where help is needed.

Doctors have found that, in most cases, it is a good idea to let the mother nurse her baby as soon after delivery as possible. The sucking of the baby releases hormones which cause the uterus to contract. This has a threefold advantage: it causes the expulsion of the placenta, if this has not already occurred; it reduces the danger of post-partum hemorrhage; and it aids in earlier involution of the uterus. This last, in other words, “gets her back in shape faster.”

Early nursing helps reduce the engorgement which often accompanies the first coming-in of the milk. The baby gets the colostrum, which is the fluid secreted by the breasts before the true milk comes in and which, some doctors feel, contains many immunity factors, as well as having a laxative effect which aids in getting rid of the meconium.

The baby ideally should be nursed at two- or three-hour intervals, or on demand if at all possible. If rooming-in is available, this is an extra advantage, as mother and baby can be together and the baby fed and cuddled whenever he wants. (Studies have also shown that rooming-in greatly reduces the danger of staph infections among the newborn. It cuts down crying in the babies. It also involves less nursing care for the mother and baby, which is a boon to the often crowded, understaffed hospital.) Rooming-in eliminates for the nurse such routine tasks as diaper-changing and baby-toting, allowing her more time to assume her proper professional role as educator, as she instructs the new mother in the best ways of attaining the health and well-being of her baby.

FIRST FEEDING

When the baby is brought to the mother for the first time, allow plenty of time to show her how to hold her little one and help him start nursing. A little extra time spent now will save you more time later and will greatly encourage the new mother.

The mother may either lie down or sit up, whichever she prefers. If the mother is lying down, for nursing on the right breast, have her lie on her right side, with a pillow at her back for support. Raise her right arm and lay baby next to her with her arm encircling his head. If she chooses to sit up, make sure she is comfortable, with her feet propped up on a footstool if she is in a chair, or, if she is in bed, with a couple of pillows at her back and her knees somewhat flexed. A pillow may be set on her lap to raise the baby up a bit if she likes.

Do not touch the baby's head or face in any way, save on the back of the head to guide him, if necessary. If the baby is held so that his cheek lightly touches his mother's nipple, he will naturally turn his head in that direction and open his mouth to suck. At this point, have the mother pull him in a bit closer to her, so baby can get a good grasp of the nipple. See that she knows how to depress the breast with her finger near the baby's nose so that he is able to breathe. If the breast is very full and heavy, as is often the case when the milk first comes in, especially in the primipara, she should be taught to support the breast with her hand, with her fingers above and below the nipple to help the baby get the areola as well as the nipple in his mouth.

If this is the first time the mother has breastfed, and especially if she is blonde or red-haired, or fair-skinned, it is wise to limit the nursing time. Let the baby nurse well for about five minutes on one side, then five minutes on the other side. This is long enough for the first day or so, after which time, unless the mother complains of sore nipples, she may increase the time to ten minutes on each side. *The more the baby nurses, the more milk there will be.* If she has nursed other babies and has had no trouble with sore nipples, she may nurse longer if she likes, right from the start.

Mother and baby should not be rushed; you are there to see that things are going smoothly and to add words of encouragement. If the baby is sleeping when he is brought out, let the mother try gently to waken him by talking to him as she rests his cheek against her breast. If he will not awaken, reassure her that it won't hurt him to miss one feeding. Ideally, you could bring him out again when he does wake up.

NO SUPPLEMENT, PLEASE

Usually, the doctor will leave orders that the breastfed baby is not to be given any formula in the nursery between feedings. If he has not left such orders, suggest to the mother that she ask her doctor to do so. Naturally, if the baby is given a bottle before he is brought out to nurse, he will be too full and sleepy to be interested in nursing. The breastfed baby who is brought out to his mother for feeding does not need anything else, even water, and will be much better off without it. Extra feeds interfere with the delicate balance between supply and demand of breast milk. The more vigorously the baby nurses, the more milk there will be. Conversely, the more supplement he is given, the less he will take from the breast, and the supply of mother's milk will diminish accordingly.

Then, too, as you know, cow's milk, from which most formulas are derived, is highly allergenic, and the baby should not be needlessly exposed to it through supplementary feedings.

WEIGHING THE BABY

Weighing the baby before and/or after each feeding is an inaccurate way of gauging how well he is doing in the first few days. If it is required by hospital rules, don't bother to report the results to the mother, because the amount taken at these early feedings is small and varies considerably from one feed to the next. The newborn baby does not really get hungry for the first few days, and there is no need to worry the new mother over these details. They are *not* important.

"DRY-UP" MEDICINE

A word here about stilbestrol and other "dry-up" medications. If the mother has mistakenly been given some of this, or if she has had it to dry her up and has then decided to breastfeed, assure her that her milk is still there and she can certainly breastfeed if she will just begin to nurse the baby. The stilbestrol is given to reduce the engorgement and hinders the milk supply only slightly or not at all. In fact, some doctors give it to their nursing mothers to reduce the swelling and thus aid in the free flow of the milk. Frequent nursing will bring in a good milk supply, "dry-up" pills or not!

NIPPLE CARE

Most hospitals have some routine for cleansing the nipples before the baby is brought out to the mother to nurse. Follow the procedure as you are instructed, but explain to the mother that when she goes home, this will not be necessary, and care of the nipples is a simple matter of a plain water wash once a day. Stress that soaps, alcohol, tincture of benzoin, witch hazel, and other astringents should be avoided. These tend to be very drying, and frequently contribute to sore and cracked nipples. They are only used in the hospital because extra precautions must be taken there to guard against cross-infections.

The doctor may give detailed instructions on nipple care, if there should be any soreness or tenderness; or instructions can be found in *THE WOMANLY ART OF BREAST-FEEDING*. Meanwhile, here are a few simple suggestions for you to follow. It is wise to remember that the blonde or red-haired mother, or the one with fair skin, is more likely to have trouble with sore nipples. A few simple measures taken in the beginning can prevent more serious trouble later on.

In the first place, avoiding or reducing breast engorgement helps, since sore nipples frequently begin with engorgement. The baby cannot get a good grip on the nipple; he tugs and chews and fusses and this in turn causes sore and tender nipples. If the engorgement is really severe and painful, ask

the doctor to prescribe a pain-reliever. Also, if the baby has trouble getting started sucking, show the mother how to hand-express her milk* to relieve the breasts somewhat and to get the milk started, making it easier for the baby to begin nursing.

Remember that the mother who is uncomfortable or in pain for any reason (whether it be engorgement, sore nipples, "after-pains", or stitches) is not going to be relaxed, and her let-down may be a bit delayed. This means that the baby will chew and fuss all the more, and the nipples will be further irritated. So do see that she gets something to make her comfortable and, above all, reassure her that this is only a temporary discomfort.

There are two important things to remember in nipple care. (1) The tenderness will be minimized, if not eliminated entirely, if the nipples are given the proper care right from the start. (2) Even if the mother does suffer very sore or cracked nipples, once proper care is begun they will clear up, and only in extreme cases is it necessary to take the baby off the breast, and then for a very short time, during which the mother can hand-express.

For whatever tenderness the mother may have, any mild ointment her doctor may prescribe will probably be helpful. After the baby has been nursed on both sides, a very light coating of the ointment should be applied to the nipples. Among the ointments most popular with League mothers are pure lanolin, Vaseline and White's A&D Ointment. These preparations are not harmful to the baby so it is not necessary to remove them from the nipples, either by washing or wiping. This eliminates the irritation this could cause. Some ointments, however, have been found to contain an element or two which might be irritating to sensitive skin, so the mother had better

*Instructions for the mother: Cup the breast in your hand, placing your thumb above and forefinger below the nipple, on the edge of the dark area (areola), and simply squeeze thumb and finger together. Don't slide the finger and thumb out toward the nipple. Don't worry if nothing comes out the first few times you try it; you'll get the knack of it soon. Change the position of your fingers several times in order to reach other milk ducts. The ducts radiate out from the nipple. Hand-express for a total time of about ten minutes on each side, alternating sides every few minutes.

check with her doctor about whatever ointment he might choose to recommend.

If the tenderness continues even though you have been using the lanolin between feedings, try letting more air at the nipples by leaving the little trap door on the bra open. During the time the nipples are sore, it will be necessary to limit the nursing time (see above).

"QUITTING TIME"

If nursing time is up, and the baby is still on the breast nursing vigorously, it might be well to give him another couple of minutes. If, on the other hand, he is mostly asleep, and just sucking every now and then, it might be necessary to remove him from the breast, gently. Have the mother press the breast away from the corner of the baby's mouth to release the suction. Just pulling the nipple away from the baby can be quite painful.

MOTHER'S DIET

Contrary to what you may have heard elsewhere, there are no particular foods a mother need eat, no particular foods she must avoid, if she is going to nurse her baby. Just encourage her to follow the rules for a good basic diet and to drink enough liquids to keep from getting constipated. She needn't drink milk if she doesn't like it; fruit juices, coffee, tea, or whatever she chooses will do as well. The lovely fruit basket she is given as a gift is just the thing for her, and, of course, while the box of chocolates or salted nuts won't hurt her any, it will be just as well if you accept her offer to share them with you, "so they don't spoil your appetite." In general, then, she may eat any food that agrees with her.

SPECIAL SITUATIONS

Once in a while, you will run into a special situation which requires somewhat different handling. These are discussed fully in our manual, but we will go into them briefly for you here.

The Premie. The premature baby usually requires extra care as regards his feeding routine. If he is a very small baby and cannot be brought to the mother, she should be helped to pump her breasts either by hand-expression or with an electric pump, which many hospitals supply. The milk can then be given to the baby in the nursery. Mother's milk is the best milk for the premie, as it is the most easily digested and most perfectly suited to his system. There are milk banks throughout the country for the express purpose of supplying the premature and sick baby with the best possible nourishment.

As the mother leaves the hospital, encourage her to continue pumping and to send in her milk for her baby. He will eventually be big enough to start nursing himself. She should know that for a time he might not nurse too well, both because he is little and not very strong, and because he has become used to bottles. But a little extra patience and encouragement will do the trick. Do urge her to get in touch with a League mother.

Caesarean Delivery. The mother who has had an operative delivery can nurse her baby. For the first day or so she will need extra care and rest, and will not feel as bright and chipper as her neighbors who have had normal deliveries. But her baby can be brought to her very soon. For comfort, she may want to lay the baby on a pillow on her lap for the first couple of days, but soon she can hold her tiny bundle with no trouble at all. Follow the usual routine for her as for any mother, and do remind her that breastfeeding is going to be extra easy and restful for her throughout her convalescence.

FINALLY

In general, we would urge you again to remember that a kind word and friendly interest mean a great deal to the new mother. Let her know you are glad she is nursing her baby. Admire her and let her feel proud of herself. A happy, encouraged mother means a satisfied patient, and good recollections about her hospital stay. She will look forward to coming back again with her next baby, and will tell other women about her hospital experience in such a way that they too will anticipate a happy introduction to motherhood.

APPENDIX E

RAW DATA

Mother

1. <u>Parity</u>	Totals	<u>Gravidity</u>	Totals
i	25	i	21
ii	3	ii	7
iii	1	iii	1
iv	0	iv	1
v	1	v	0

2. Month of Decision to Breast Feed

Month	Totals
0.5	3
1-1.5	3
2-2.5	12
3-3.5	2
4-4.5	5
9-del.	5

Month Prenatal Care Started

Month	Totals
0.5	3
1-1.5	8
2-2.5	14
3-3.5	2
4-4.5	2
5-5.5	1

3. Preparation for Breast Feeding

<u>16</u>	Literature
<u>8</u>	Medical/Nursing
<u>1</u>	Special Classes or Clubs
<u>2</u>	Friends
<u>11</u>	Relatives

4. How do you feel about breast feeding?

"I'm definitely for it."

"I feel very good about it and at it." (5)

"I like it very much." (3)

"I think it's great!" (2)

"I'm very pleased with it." (2)

"I think every woman should breast feed." (2)

"I think I'd much rather breast than bottle feed."

"I'm delighted with it."

"I think it's the best, most convenient and closest way to feed a baby." (4)

"I feel very natural and protective when I'm breast feeding." (2)

"I'm excited about it. I think it's best."

"I just know it will be rewarding."

"I'm not really sure how I feel about it."

"I think I like it."

"I'm glad I started breast feeding."

"It's fine but I'm sore already."

"I'm not all that sold on it."

5. What is your husband's/family's attitude toward breast feeding?

"He's all for it.", "They're all for it." (11)

"My husband thinks it's just fine." (2)

"He's really tickled that I'm breast feeding."

"He's agreeable to my breast feeding."

"I guess they'll go along with it." (3)

"I'm not all that sure how they feel." (3)

"He really wants me to." (2)

"He says it's economical; he's really encouraging me."
(2)

"They say it's the best way." (3)

"He doesn't mind."

"He definitely wants me to try."

6. Have the nurses here helped you with breast feeding?

Yes 18 No 12

How?

Showed how to breast feed or how to start	11
Gave help with inverted nipples	2
How to hold the breast	2
How to hold the baby	2
Gave general advice about breast feeding	1
	<u>18</u> total

Infant

7. Birth date sought for identification and criteria of the study.

Birth weights	Totals
6 pounds - 6 pounds, 15 ounces	8
7 pounds - 7 pounds, 15 ounces	8
8 pounds - 8 pounds, 15 ounces	11
9 pounds - 9 pounds, 15 ounces	2
10 pounds - 10 pounds, 15 ounces	0
11 pounds - 11 pounds, 15 ounces	1

8. General medical impression

Good or Healthy reported by all thirty study patients.

9. Type of medical supervision

17 Pediatrician

11 General Practitioner

2 Well Baby Clinic (Well Child Conference)

Success of Breast Feeding

10. How long did you nurse your baby?

Days	Totals
2	1
3	1
4	1
7	3
8	1
11	1
14	6
18	2
21	14

Days	Group I		Group II	
	Totals	Days	Totals	
7	2	2	1	
11	1	3	1	
14	2	4	1	
18	2	7	1	
21	8	8	1	
		14	4	
		21	6	

11. Reasons for continuing breast feeding

0 Convenience

11 Enjoyment

0 Inexpensive

3 Other

12. Reasons for stopping

- 1 Inconvenient
- 4 Unenjoyable
- 5 Inability to maintain milk
- 1 Attitude of family or friends
- 5 Illness of baby or mother

13. Did the special nursing care help you with breast feeding?

Yes 15

14. What part of the nursing care helped you the most?

- 3 Everything (Nothing specific noted)
- 2 Getting nipples up; nipple shields, help with depressed or inverted nipples
- 2 Discussion of Relaxation
- 11 Technique of manual expression
- 2 Discussion of how breast feeding contributes to the baby's health

Some mothers placed equal importance on two areas of the special nursing care.

15. What problems do you have that were not helped by the special nursing care?

- 10 None
- 2 How to know if the baby is getting enough milk or if the mother has enough milk for the baby
- 1 Cracked nipples
- 1 How to keep the baby awake
- 1 "What could happen."

16. Do you hope to breast feed again?

Yes 21

No 9

Group I

Group II

Yes 13

Yes 8

No 2

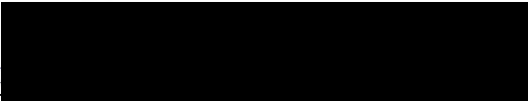
No 7

AN ABSTRACT OF THE THESIS OF
JOAN CARLEY OLIVER

For the MASTER OF SCIENCE in NURSING EDUCATION

Date of receiving this degree: June 6, 1968

Title: A STUDY OF THE RELATIONSHIP BETWEEN
NURSING CARE AND OTHER FACTORS AND
THE SUCCESS OF BREAST FEEDING

Approved: 

(Associate Professor in Charge of Thesis)

ABSTRACT

This study was conducted to determine the effect nursing care as outlined in a specific nursing care plan had on the success of breast feeding and to obtain information regarding other factors which influence the success of breast feeding including 1) maternal attitudes toward breast feeding, 2) the attitudes of husbands and other family members toward breast feeding, and 3) the amount of preparation had by breast feeding mothers for their experiences.

The study was limited to thirty breast feeding mothers on the maternity units of Emanuel Hospital. The study patients were alternately assigned either to the Experimental or the Control group; the nursing care plan was applied to the Experimental group and was the independent variable in the study. The other three factors listed above were also studied.

Information was obtained by the use of personal interviews two to three days after delivery and by phone interviews three weeks later.

1. Findings

The two sample groups, Experimental and Control, were found to have been drawn from the same maternity population.

Prenatal preparation for breast feeding was confined mainly

to that assistance obtained from literature on breast feeding or from relatives.

Maternal attitudes and attitudes of the husband or other family members were generally in favor of breast feeding but such positive attitudes seemed to have no influence on the success of breast feeding.

Eighteen of the study patients felt that they had received assistance from the nursing staff as regards breast feeding; however, such nursing assistance appeared to have no influence on the success of breast feeding.

Successful breast feeding mothers felt their reasons for continuing with breast feeding revolved around enjoyment of the experience. Reasons given by mothers unsuccessful at breast feeding for discontinuing dealt mainly with illness of mother or baby or the inability to maintain a milk supply.

Nursing care as outlined in the nursing care plan was considered helpful by all of the fifteen women in the experimental group with the technique of manual expression cited as being the most beneficial part of the plan. The nursing care provided for in the nursing care plan did not have a significant effect on the success of breast feeding but a significantly greater number of women in the experimental group expressed a desire to breast feed again.

Individual tables have been presented for the responses for

each item. The detail may be found in Appendix E.

2. Conclusions

Based on the findings in this study, the following conclusions were drawn.

1. The purposes of the study were fulfilled.
2. Prenatal preparation for breast feeding appeared to be minimal at most and did not include those areas of education and discussion suggested by authorities in the field.
3. Mothers who received planned nursing care which included recommended practices appeared to be happier with their breast feeding experience regardless of the number of days of lactation; such mothers stated they would be more inclined to breast feed after future deliveries.
4. The number of participants in this study was too small to permit generalizations; however, it did appear that something happened to the Experimental group that did not happen to the Control group. There is no proof, however, that the nursing care plan actually changed attitudes and in turn contributed to the success of lactation.

3. Recommendations

1. In order to investigate more fully the influence of nursing care on the success of breast feeding, a study such as this but on a larger scale and in more depth is recommended. The study could include a day by day evaluation of each study patient and could provide for daily assistance with breast feeding. Follow up of study patients should be done at frequent intervals rather than only once after the initial contact. This study with its small number of participants could be considered as a pilot for the larger study.
2. It is suggested that an investigation be made of the attitudes of maternity staff members in various settings. The amount of preparation for assisting with initiating and maintaining breast feeding should be studied.
3. Various tests for success of breast feeding have been developed. Criteria for each test should be applied to further studies dealing with nursing care of the breast feeding mother.
4. Prenatal preparation and education for breast feeding should be encouraged. Investigations should be made of medical, nursing and other health personnel who will come in contact with the pregnant woman who desires to

breast feed as regards their attitudes toward breast feeding and their abilities for providing prenatal preparation.

5. Groups such as the La Leche League should investigate methods of reaching the woman who desires to breast feed or is having problems with breast feeding. Such groups should also investigate methods for working with the medical and nursing personnel who are caring for the breast feeding mother.
6. Finally, courses of instruction in maternity care for nursing and medical students should be investigated for the possible strengthening of attitudes and techniques dealing with breast feeding and the breast feeding mother.

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