NURSE-INITIATED TELEPHONE CONTACT AND CONTINUATION OF BREASTFEEDING AMONG FIRST-TIME BREASTFEEDERS

by

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STATEMENT BY AUTHOR

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APPROVAL BY THESIS DIRECTOR

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Date

DEDICATION

To our parents, who taught that we must believe in ourselves, and that no goal is so lofty that it cannot be attained when we are willing to work hard and dedicate ourselves to achieving it.

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ABSTRACT

This exploratory study examined telephone follow-up by a nurse in assisting first-time breastfeeders. Group 1 mothers (n=8) were contacted the tenth day at home to determine how well they were breastfeeding. Group 2 mothers (n=9) were contacted on day 3, and nursing intervention included guidance, support, and information. Group 2 mothers were called again on day 10 to determine how well they were breastfeeding.

Results were compared to determine if a higher percentage of continuation occurred among those who had received early intervention. Data obtained suggest that an association does exist. On day 10, all members of Group 2 were successfully breastfeeding with 78% having no problems, while in Group 1, one member had already discontinued, and two were at risk for early discontinuation. In Group 1, only 38% had encountered no problems.

Other factors associated with success included the father's presence in the home, perception that he was helpful, advance preparation for breastfeeding, and desiring to breastfeed four months or longer.

CHAPTER 1

INTRODUCTION

Lay literature and feminist literature are replete with encouragements for mothers to initiate and continue long-term breastfeeding. Nursing, medical, and social science volumes are filled with the hows, whys, and microscopic insights into breastfeeding, but little of this seems to have found its way into the hands of the expectant mother. While it seems a logical assumption that expectant mothers would be a captive audience for health practitioners to teach about the benefits and techniques of breastfeeding, experience tells us otherwise.

Disbrow summarizes the impressions of 200 interviewed mothers thus: most felt that their decision to breastfeed and their degree of success were of no credit to nurses and doctors. Many mothers considered the health professionals indifferent, and their contribution could be interpreted as the "withholding of information," (Disbrow, 1963, p. 47). It appears all too often in print that mothers have succeeded in breastfeeding <u>despite</u> professional health care practitioners (Nutrition Committee of Canadian Paediatric Society, 1978; Duncombe, 1975; Gardner, 1978; La Leche League, 1963).

Estok (1973) compared what nurses identify as common problems among new breastfeeders and what the mothers considered to be their major problems; she found that maternity nurses were not aware of the real problems being encountered. Mobbs and Mobbs (1972) state that success in breastfeeding can be directly related to the level of understanding and type of care shown by hospital attendants. Nursing staff can actually discourage and frustrate mothers to the point that they terminate their efforts to breastfeed even before discharge from the hospital (Applebaum, 1969; Gardner, 1978; Knafl, 1976).

Experience of the researcher in the hospital setting has shown that few new mothers feel that they can turn to their physicians for encouragement when they seek to breastfeed. When the childbirth event is viewed as an inpatient process requiring medical guidance and intervention, it is of little wonder that infant formulas have enjoyed such long-lived favor. Artificial, scientifically-controlled, chemical-enriched formulas have been accepted as the "routine prescription" for hospitalized newborns, complete with directions for amount, type, frequency, and route of administration.

Statement of the Problem

Many mothers who choose to breastfeed for the first time will ultimately discontinue breastfeeding during the

first two weeks at home. In many cases, their failure is due to the lack of a role model or resource person (Klaus and Kennell, 1976; Raphael, 1976).

Few young American women have grown up with continuous exposure to breastfeeding in the home environment. In our culture, most women under 30 have never seen another woman breastfeed her baby. Most who elect to breastfeed seem to think that it is the "natural" method of infant feeding, and it must, therefore, be "automatic." Problems are seldom anticipated (Raphael, 1976), and unlike rural societies where breastfeeding is the entrenched tradition, resources available in our society are often scanty (Helsing, 1976). The inexperienced breastfeeding mother who encounters difficulties in nursing her baby, and who does not perceive that she has access to knowledgeable resources, frequently interprets that she has done something wrong. Her solution is often to discontinue breastfeeding before her "failure" harms the newborn.

What is the professional nurse's role in preventing early discontinuance of breastfeeding and perceived failure? Many mothers who have decided to breastfeed do nothing to prepare for the experience, because they seem to believe that "the nurse will show me how" or "the nurse will tell me what I need to know." In the experience of the researcher, they often look to the maternity nurse for answers, and trust that she will provide the solutions to their problems.

Therefore, nurses who deal with maternity clients must be prepared to provide the necessary information and encouragement (Auerbach, 1979; Leighton, 1978).

A critical time in the success of breastfeeding occurs when the mother finds herself at home and alone, with no breastfeeding expert available. Women themselves recogize the need for emotional support to continue after they arrive home (Hall, 1978). It is at this time, then, that nurses can most effectively extend their services by offering support via the telephone (Donaldson, 1977; Grassley and Davis, 1978; Haight, 1977; Hall, 1978; Rising, 1974; Rubin, 1975).

Statement of the Purpose

The purpose of this study was to explore the relationship between a nurse-initiated telephone call offering support for breastfeeding mothers on the third day after discharge and the continuance of breastfeeding one week later.

Significance of the Problem

The current trend in the United States is toward increasing numbers of breastfeeding mothers (Quill, 1978; Yencho, 1977). This researcher's personal audit of nursery records in two facilities indicated the following trends:

Hospital A

1975
Total Deliveries.....960
Formula Fed.....587 or 61%
Breastfed.....373 or 39%

1976
Total Deliveries.....897
Formula Fed.....509 or 57%
Breastfed.....388 or 43%

1977
Records reviewed in Spring, 1977, indicated that this trend of increasing numbers of breastfed babies would continue; that 50% of the newborns would be formula fed and 50% would be breastfed.

Hospital B

1978
Total Deliveries.....656
Formula Fed.....401 or 61%
Breastfed.....255 or 39%

1979
Total Deliveries.....649
Formula Fed.....380 or 59%
Breastfed.....269 or 41%

1980
Total Deliveries.....746
Formula Fed.....401 ot 54%
Breastfed.....345 or 46%

Breastfeeding is also on the increase in this facility.

The numbers of mothers in American communities who choose to breastfeed is slowly increasing; however, many of these mothers will ultimately encounter problems for which they do not have adequate resources. When confronted with breastfeeding problems that seem critical in nature, many

may discontinue breastfeeding in favor of the "security" of bottle feeding. This failure at attempted breastfeeding can alter a new mother's perception of her mothering skills and cause a loss of self-esteem.

Determining methods to assist breastfeeding mothers would increase the likelihood of long-term breastfeeding, as well as the satisfaction of the breastfeeding couple. As nurses, we can assist new mothers to thoughtfully make their decisions regarding infant feeding, and answer questions significant to breastfeeding, in order to offer solutions to problems as they arise.

When health professionals have available a wealth of knowledge without disseminating that information to the critical population, this constitutes a withholding of services (Disbrow, 1963). The consumers of health care services have a right to the information available to help them make their own health decisions. Nurses, as health care consumer-advocates, have an obligation to make available their knowledge. One way for the nurse to do so is by extending her services to the new breastfeeding mother at home, utilizing the telephone.

Conceptual Orientation

This study took the approach encouraged by Orem (1971) in her self-care theory of nursing. This approach emphasizes the nurse's legitimate role as support or resource

person for clients who are seeking independence in their own self-care practice. From a systems theory perspective, Orem's concept of nursing includes an open system wherein a client's health care needs are addressed according to primary, secondary, and tertiary levels of prevention. The three systems of nursing care delivery are partially- and wholly-compensatory (in which the nurse performs functions the client is unable to perform for herself) and supportive-educative.

All nursing actions to assist a client are categorized as educating, guiding, supporting, providing a developmental environment, or acting for or doing for another person. The objective of all nursing actions in the self-care system is (after identifying the client's self-care deficits or needs) to equip the client to perform her own self-care. The unique purpose of nursing is to prepare the client to care for herself independently, so that nursing intervention is eventually no longer needed (Orem, 1971).

Using Orem's concept of nursing, then, the role of the nurse in relation to breastfeeding can progress through all stages of prevention: offering input to the mother as she selects a method of infant feeding, providing assistance during the early attempts to breastfeed and during crises, and acting as a resource person during maintenance of breastfeeding. The skills needed to offer this assistance

in a supportive-educative system are: provision of a developmental environment (if needed), education, support of the mother's chosen method of infant feeding, and guidance. These are all functions within the realm of the professional nurse's role (Berg, 1979; Hall, 1978; Lawson, 1976; Orem, 1971).

Definition of Terms

For the purpose of this study, the following definitions were used:

1. Sample for the Study: New mothers in the Tucson community who were discharged from Hospital X during Spring of 1981, and who were breastfeeding for the first time.

2. Supportive Telephone Contact: Any praise, encouragement, suggestions, or information that moved the nursing mother to continue or consider continuation of breastfeeding; the contact was made by telephone and was initiated by the nurse. If the mother had discontinued breastfeeding, the nurse was supportive of the mother's new choice to formula feed.

3. First-time Breastfeeding Mothers: New mothers who had not breastfed a previous infant; this included multiparas who had not had prior breastfeeding experience.

4. Third Day after Discharge: The mother's first day at home was the day after hospital discharge; if the

mother was discharged on Monday, her first day at home was Tuesday, and the third day after discharge was Thursday.

5. Tenth Day after Discharge: The day following hospital discharge was day 1; therefore, when the discharge day was Monday, the tenth day was Thursday of the following week.

6. Successful Breastfeeding: No attempt to scientifically measure "success" was initiated. Success was determined according to three empirical criteria:

a) The objective finding that the mother was still breastfeeding on day 10;

b) The mother's stated intention to continue breastfeeding as long as originally planned;

c) And the mother's subjective statements that her breastfeeding experience was successful.

7. Early Discontinuation of Breastfeeding: Cessation or planned cessation of breastfeeding by a mother prior to and not consistent with her originally-stated expectations for duration to breastfeeding.

To operationalize this term, a mother's plans for continuation of breastfeeding on day 10 were compared with her originally-stated plans for breastfeeding. For example, if a mother had originally planned to breastfeed for 2 weeks, and still planned to when contacted by telephone on day 10, that was consistent with her original plans, and was not rated as early discontinuance. However, if the mother had

originally planned to breastfeed longer than 2 weeks (such as 6 weeks or 6 months), but revealed during the telephone contact that she was going to discontinue sooner, that was inconsistent with her original plans, and therefore did constitute early discontinuation.

CHAPTER 2

REVIEW OF THE LITERATURE

The literature review focused on three areas: 1) early discontinuation of breastfeeding, including measures within the realm of nursing to prevent early discontinuation; 2) the role of the nurse in assisting the breastfeeding mother; and 3) use of nurse-initiated telephone contact with breastfeeding mothers at home.

Early Discontinuation of Breastfeeding

Many studies indicate that a high percentage of mothers who initiate breastfeeding discontinue much earlier than they had originally hoped (Disbrow, 1963; Hall, 1978; Raphael, 1976; Whitley, 1978). Halpern (1976) studied statistics compiled over a three-year period by eleven pediatricians in private practice, and states that 53% of a total of 1,753 mothers had discontinued by 8 weeks.

Olson (1978) refers to other studies which "show that 25 percent of newborns are breastfed and that figure declines to about five percent at 6 months of age" (p. 32). Olson later conducted her own studies during two separate time periods. During the first time period, Group A, 65% chose to breastfeed. At 8 weeks, 55% of the breastfeeders

were still continuing, and at 6 months, only 15% were breast-feeding. In Group B, 55% initially breastfed, with 60% still breastfeeding at 8 weeks, and 25% of the breastfeeders still continuing at 6 months (Olson, 1978).

Hall's study (1978) found that at 6 weeks, 50% of nursing mothers had quit breastfeeding when sent home to fend for themselves, but a dramatic 80% were still breastfeeding at 6 weeks when offered ongoing support by one nurse.

What factors would account for the high rate of early discontinuance and failure? While breastfeeding is an intact practice in many rural societies, Helsing (1976) attributes the success to a wide base of resource persons whose "accumulated experience" allows for the early solution of breastfeeding problems. In our society, however, "the traditional know-how and support is often lost, and failure to breast-feed often results" (Helsing, 1976, p. 215). Nonsupportive hospital staff attitudes, including inexperience and indifference, contribute to disruption and ultimate failure (Duncombe, 1975).

Disbrow (1963) reports that of 122 breastfeeding mothers visited at home between 4 and 8 weeks after discharge, 38% had ceased breastfeeding prior to the 8th week. In the larger population of 175 followed by Disbrow, 40% nursed for shorter duration than they had planned, and 39% expressed their degree of success as low or very low. Anxiety and

tension on the "obstetric ward--where she often receives inadequate instruction and little emotional support--may explain why success is elusive, even when the mother wishes to breastfeed" (Nutrition Committee of Canadian Paediatrics, 1978, p. 597).

The Nurse's Role in Assisting Breastfeeding

Extensive review of breastfeeding literature cites the importance of three intertwined factors--guidance, support, and information--as being fundamental needs of the breastfeeding mother. These factors are components of the legitimate role of the nurse.

The first-time breastfeeder's perception of adequate support systems can enable her to find answers to her problems and questions about breastfeeding when they arise, in order to continue with the experience and achieve success. When the mother seeks these support factors and interprets that they are not available, her breastfeeding experience becomes shaky, she cannot find solutions, and she discontinues breastfeeding prior to her anticipated length of time. Nurses can supply the answers and the encouragement needed by a new mother to help her solve problems. "Education and anticipatory guidance must be the goals of nurses . . . involved on all levels with breastfeeding couples" (Leighton, 1978, p. 217).

The nurse may also offer supportive care through guiding (teaching) the husband to assist his wife (Bishop and Bishop, 1978). Auerbach (1979) states that the primary role of the nurse in supporting breastfeeding is to provide information and support regarding lactation. Murdaugh and Miller (1972, p. 1420) state that although the incidence of mothers choosing to breastfeed is increasing, new mothers seldom have the luxury of skilled role models, so they seek help and support from the nurse. For some mothers, "Successful lactation depends to a large extent upon the encouragement and support given them by doctors and nurses, whom they consider to be authorities."

Numerous other articles point to the need for nurses who work with breastfeeding mothers to prepare themselves intellectually to handle problems as they arise, and to teach in anticipation of problems (Berg, 1979; Donaldson, 1977; Grassley and Davis, 1978; Haight, 1977; Hall, 1978; Knafl, 1976; Mobbs and Mobbs, 1972; and Whitley, 1978).

Slattery (1977) questions why so many mothers fail at breastfeeding and states the need for nurses to remain with the new mother as a support person. After questioning mothers and asking what information would have made them more successful, Olson recommends that the nurse can assist breastfeeding by "educating these mothers about . . . lactation, by offering anticipatory guidance, emotional support,

and practical suggestions when problems arise" (Olson, 1978, p. 34). Lay manuals on breastfeeding emphasize the same relevant factors--the presence of a person or persons in the circle of the new mother who is (are) equipped with answers to keep her going when the road seems rough (Eiger and Olds, 1972; Gerard, 1970; Klaus and Kennell, 1976; La Leche League, 1963; Pryor, 1976; Raphael, 1976).

Quill (1978) found that conditions of the initial time at breast were not as important as each individual's having a strong support system for breastfeeding in operation. As Raphael states, "In the case of human mothers, those who have some sort of 'mothering' from another person can do well at breastfeeding, but those who do not can almost certainly expect trouble" (Raphael, 1976, p. 15). Other authors concur that "mothering the mother" is a role that can be initiated by the professional nurse, with positive results (Grassley and Davis, 1978; Hall, 1978).

Telephone Contact

Several studies concerning telephone follow-up by nurses were examined. Although all studies confirmed the benefits of this service, there was some disagreement regarding the optimal time for post-discharge telephone contact.

On maternity units, a nurse-initiated telephone follow-up has proven useful in assessing the existence of

problems, thus allowing for early nursing intervention (Donaldson, 1977; Grassley and Davis, 1978; Haight, 1977; Hall, 1978; Rising, 1974; Rubin, 1975). These reports state that the professional nurse who initiates the call can often help new parents overcome their problems through provision of information, guidance, and support. In the existence of medical problems, the nurse can make prompt referrals to the physician through information gleaned by telephone contact.

Hall (1978) suggests a post-discharge telephone call one-to-two days after discharge, but Donaldson states, "The most successful time for the initial follow-up call is from the third to seventh days following hospitalization. It is at this time that resources have been explored and concerns realized. Beyond seven days, we find mothers have solved problems, often not in the best way" (Donaldson, 1977, p. 1178).

Lawson's study on perceptions of support for breastfeeding also sought to determine the most difficult period of time during breastfeeding; "for most women the initial one to two weeks, was the most frustrating because of the 'newness,' insecurity about how to go about it and lack of knowledgeable people to help." She concludes by saying that, "with increasing numbers of women breastfeeding . . . nurses

can prepare to respond helpfully to consumers' demands for information, support, and encouragement" (Lawson, 1976, p. 67).

In sum, literature findings have indicated that discontinuation of breastfeeding is often associated with the absence of resource persons or sources of help among the new breastfeeder's associates. Some studies suggest that the helping role of the nurse can serve the purpose of providing the needed knowledge and support. One way to meet the supportive needs of new breastfeeding mothers is through a nurse-initiated telephone contact.

CHAPTER 3

RESEARCH METHODOLOGY

This chapter describes the design of the study, the sample, data collection methodology, and methods of data analysis.

Design of the Study

This was an exploratory study to determine if there were differences between outcomes for first-time breastfeeders who received supportive telephone contact 3 days following discharge and those who did not. Outcomes of interest included success with the breastfeeding experience and expressed intention to continue when contacted 10 days following discharge.

For this study, the nursing intervention was a telephone call to a group of first-time breastfeeding mothers 3 days following discharge, to answer their questions and to offer them encouragement and support (see Interview Guide, Appendix E). A telephone contact was also made one week later to determine success and/or continuation of breastfeeding. Results were compared with a group of first-time breastfeeding mothers who did not receive a supportive telephone call 3 days following discharge.

The Sample and Setting

This convenience sample included first-time breastfeeding mothers who delivered at Hospital X during the Spring of 1981. Each participant was later contacted by phone at her home. Criteria for inclusion were:

1. Mother and infant were healthy as determined by maternity unit nursing staff.
2. Mother consented to one or two follow-up telephone calls at home.
3. Mother spoke English and had home phone.
4. Mother was a first-time breastfeeder--this included multiparous women who had never breastfed.
5. Mother had expressed the desire to breastfeed longer than two weeks.
6. Mother did not plan to return to work or other critical commitment within the first two weeks at home.

Demographic data of interest were limited to the ages and educational levels of the new breastfeeder and her newborn's father, the mother's ethnic group, and relationships of those sharing the mother's home. Demographic data sought did not include such factors as occupation, income level, or obstetric history.

Data Collection Method

The study covered 6 weeks during April and May, 1981. Prior to the study, the researcher obtained approval from

the University Human Subjects Committee (Appendix A) and written permission granting access to the facility (Appendix B). The researcher checked with the maternity unit each Monday, Wednesday, and Friday while the study was in progress, to determine which mothers and infants would be discharged that day. She then discussed the project with qualifying mothers prior to their hospital discharge. Those who consented to the telephone follow-up were then interviewed for demographic data (Appendix D), and signed the consent form. More than 30 women volunteered to participate, but some were later excluded when their babies remained in the nursery after the mother's discharge, or when the investigator was unable to reach them by telephone.

The mothers in the sample were divided into two groups, with assignment to each group based on the order of contact by the researcher. Each mother was assigned to Group 1 or 2, with the first mother being assigned to Group 1, and the second mother assigned to Group 2. Subsequent mothers were assigned to the alternating groups. The researcher flipped a coin to determine which group was to be called once (Group 1) and which was to be called twice (Group 2). Group 1, then, received only one telephone call; members were not contacted during the first 10 days and were left to find their own breastfeeding resource persons. Only Group 2 received two calls--the supportive intervention

call on day 3, and the call on day 10 to determine whether or not the mother was continuing.

The interview schedule (Appendix E) for both groups addressed the following:

a) If the mother was still breastfeeding.

b) If she was planning to continue.

c) What kind of help she was receiving.

d) What (if any) problems she was having with breastfeeding.

In addition to answering the interview questions, all subjects received information, guidance, and support. In Group 1, this was accomplished during the single telephone call on day 10, and in Group 2, during calls on days 3 and 10.

Members of both groups were given the opportunity to describe any problems they had encountered, and to ask any questions that had arisen. Solutions and answers were suggested by the researcher. After the new mother identified help she had received, the researcher asked if she had read any books specifically concerning breastfeeding that had helped her. Then a list of breastfeeding books was recommended, with brief comments on their content.

Next, the researcher introduced the topic of community resources for the individual mother. In all cases, mothers were referred to the La Leche League in the event

that additional information and support were needed in the future. The La Leche League 24-hour telephone number was given, and all mothers stated they wrote it down. Further, all mothers were told to anticipate the newborn's increased demand for feeding during his first growth spurt, at approximately 2-3 weeks of age. Symptoms and management of the growth spurt were then discussed. This constituted anticipatory guidance.

The difference in the nursing intervention was the timing. Telephone contact was timed to reach Group 2 members before they might be confronted with questions or problems (primary prevention), while allowing Group 1 members to seek their own solutions to problems. In this respect, there was greater potential for Group 1 members to be confronted with problems before the nursing telephone contact, which would constitute secondary prevention.

Description of the Tools

The tools used in this study were designed by the researcher and have not been used previously. They included a Demographic Information Sheet (Appendix D) and a Telephone Interview Guide (Appendix E).

The interview guide consisted of open-ended questions specifically devised to allow the subjects to express their own perceptions. Content validity of the interview guide as well as clarity of wording were addressed by the

researcher and a panel of experts. The experts were a doctorally-prepared nurse-sociologist, a doctorally-prepared nurse-anthropologist, and a masters-prepared nurse practitioner/administrator.

Content validity has to do with the appropriateness of a tool to measure the concept being evaluated. In this study, the questions asked were considered to provide a small but adequate sample of behaviors one might expect to find in successful breastfeeding. While the questions were not exhaustive of "the universe of behaviors" (Selltiz, 1976, p. 179), they were considered by the reviewers to be relevant and sufficient to allow for elaboration.

Validity was also addressed through determining whether or not the subjects understood the questions and gave appropriate responses. There seemed to be no difficulties in this area throughout the study.

Test-retest reliability refers to consistency in obtaining similar results on repeated administration of the same questions (Oppenheim, 1966; Selltiz, 1976). Repeated administration of the interview guide to those in Group 2 (called twice) was found to produce consistent responses in all subjects.

Data Analysis Method

The following steps were taken in analysis of the data. Data included demographic information regarding the

age and educational level of mothers, plus responses to the interview guide. A content analysis was done to determine if any patterns existed. Note was made concerning success or continuation of breastfeeding for those who received supportive telephone information on day 3 and those who did not. Appropriate descriptive statistics were used to determine significant differences between the two groups. Problems encountered by women in both groups were also noted.

CHAPTER 4

PRESENTATION OF FINDINGS

This chapter describes the findings from the data in the following order: characteristics of the sample, content analysis of the telephone interview, problems reported by subjects, and the results for Groups 1 and 2 with respect to success or failure of the breastfeeding experience.

Sample Characteristics

The study sample consisted of 17 new mothers who were breastfeeding for the first time. All subjects met the inclusion criteria established prior to the study (page 19) and delivered at Hospital X during Spring of 1981.

As shown in Table 1, the two groups of mothers were closely matched in age distribution, although the youngest mother (age 15) was in Group 1, and the oldest (age 31) was in Group 2. Participants under 20 years of age (n=5) represented 29% of the subjects. The average age for both groups was 22.5 years. Fathers' ages ranged from 17-34 years, with an average of 23.4 years.

Educational levels of mothers, in years of formal education completed, ranged from 10-18 years, with both the

highest (18 years) and the lowest (10 years) occurring in Group 1. The mean or average educational level completed was close for both groups, with a mean of 13.4 years for Group 1, and 13.7 years for Group 2. Fathers averaged approximately one additional year of education, as their mean educational level was 14.3 years. A further breakdown of age and educational levels can be found in Appendix F.

Table 1. Sample Characteristics by Group, Including Age and Education by Range and Mean, with Ethnicity of Mother and Presence of Father by Number and Percent

Factor	Group 1 (n=8)		Group 2 (n=9)		Both Groups (n=17)	
Age	Range	Mean	Range	Mean	Range	Mean
Mother	15-25	22.5	17-31	22.6	15-31	22.5
Father	17-34	22.4	20-30	24.2	17-34	23.4
Education in Years						
Mother	10-18	13.4	11-16	13.7	10-18	13.5
Father	11-18	15.6	11-16	13.2	11-18	14.3
Ethnicity of Mother	n	%	n	%	n	%
Anglo	5	62.5	8	89.0	13	76.0
Mexican American	3	37.5	0	0	3	18.0
Black	0	0	1	11.0	1	6.0
Totals	8	100.0%	9	100.0%	17	100.0%
Presence of Father in the Home						
Yes	6	75.0	9	100.0	15	88.0
No	2	25.0	0	0	2	12.0
Totals	8	100.0%	9	100.0%	17	100.0%

As shown in Table 1, the widest gap between the two groups seemed to be the presence or absence of the newborn's father in the home. All fathers (100%) were present in the homes of Group 2 mothers, but in Group 1, one-fourth (2 or 25%) of the fathers were not living with the mother. No members of either group lived with their parents or grandparents.

Ethnic group membership is also displayed in Table 1. It is important to note that while each group had Anglo women as its largest component (62.5% in Group 1, and 89% in Group 2), each group also had one other ethnic group represented. Ethnic composition was significantly different, with Group 1 composed of more than one-third (37.5%) who referred to themselves as Mexican Americans. The only ethnic minority member in Group 2 was one Black (11%). Ethnic distribution by group is also shown in Table 2.

Table 2. Ethnic Distribution of Mothers in Sample as Compared to Distribution in Arizona, 1980

Ethnicity	Group 1 (n=8)		Group 2 (n=9)		Both		Arizona*
	n	%	n	%	n	%	%
Anglos	5	62.5	8	89.0	13	76.0	72.0
Mexican Americans	3	37.5	0	0	3	18.0	18.0
Blacks	0	0	1	11.0	1	6.0	3.0
American Indians	0	0	0	0	0	0	6.0
Other	0	0	0	0	0	0	.6
	8	100.0%	9	100.0%	17	100.0%	99.6%

*Percent distribution cited only (Valley National Bank of Arizona, 1980)

The last two columns in Table 2 compare the total sample with overall ethnic distribution in the State of Arizona. Sample distribution of Mexican Americans is consistent with that of the state at 18%, as was that for Anglos (76% and 72%). The presence of one Black member in the sample (6%) was twice the expected distribution of 3%. No other ethnic groups were represented, including Native Americans, although the proportion of American Indians in Arizona is 6% (Valley National Bank of Arizona, 1980).

Telephone Interviews

All four questions on the interview guide (Appendix B) measure the concept breastfeeding success. They were open-ended questions left unstructured to allow the subject to express her own perceptions. No attempt was made to tape or make verbatim process recordings during the interviews. The first telephone contact with each mother lasted approximately one hour, and second calls (to Group 2) were usually in the fifteen-minute range.

The researcher initiated each interview by reintroducing herself over the phone, addressing the subject by name, and stating, "I'm calling to see how you and _____ (infant's name) are doing with the breastfeeding." Responses to each question were as follows:

Question 1: How are you doing with the breastfeeding?

Most responses were brief, and all included the answers below. They are listed in order of increasing enthusiasm expressed and as subjectively interpreted by the researcher.

Response	Group 1		Group 2	
	n	%	n	%
"I already quit"	1	12.5	0	0
"Discouraged"	0	0	1	11.0
"OK--I think"	1	12.5	0	0
"Pretty good" or "good"	1	12.5	2	22.0
'All right!"	0	0	1	11.0
"Fine," "just fine," or "real fine"	5	62.5	4	44.0
"Great!"	0	0	1	11.0
	8	100.0%	9	99.0%

In addition, two mothers added, "Much better than in the hospital," and some used the question as an introduction to discuss their breastfeeding problems. Many commented that they were not having any problems, and two mothers happily added that their babies were gaining weight and doing well.

Question 2: Are you planning to continue breastfeeding?

Response	Group 1		Group 2	
	n	%	n	%
No	1	12.5	0	0
Unsure	2	25.0	0	0
Yes	5	62.5	9	100.0
	8	100.0%	9	100.0%

Group 1

In Group 1, then, only 62.5% of the mothers were certain of their own intention to further breastfeed, while 100% of Group 2 planned to continue. Further discussion revealed that one mother in Group 1 had quit breastfeeding on day 9 because "the baby wasn't getting full." She refused my offer to help in relactation, but stated that she wants to have another baby "in a year or so," and wants to "try" breastfeeding again.

Two subjects in Group 1 were unsure at day 10 if they would be able to continue breastfeeding as long as they had anticipated. Both had originally stated that they had no obligations outside the home and had planned to breastfeed longer than 2 months. By the tenth day, however, one mother (living alone) was disturbed by her baby's spitting, and feared that she was responsible for the frequent regurgitation. During our telephone conversation, her baby was screaming, and the mother seemed to become increasingly agitated. She did not, however, want me to call later. She was then saying she would "try" to breastfeed "until the end of May," at which time her boyfriend would be back in town from school, and her baby would be one month old. "Then we'll decide" whether or not to continue.

The second unsure mother had overcome sore nipples during the first week, and felt she was doing pretty well

but stated that she "would like to go further and pump, but I'm not getting much." Therefore, she was uncertain whether she would make enough breast milk to continue.

The remaining five members of Group 1 were adhering to or lengthening their anticipated length of breastfeeding. One who had originally thought she would breastfeed longer than 2 weeks was hoping to "go 1½ months at least." One had hoped to continue for 2 months and was now planning on 3 months. Another, who had planned to breastfeed for 2 months, had decided to go "as long as I can" and definitely longer than 2 months. Two mothers still stated they planned to persist with their original desires to nurse for one year or on demand.

Group 2

All members of Group 2 answered that they were planning to continue breastfeeding, and most were very enthusiastic. One mother had anticipated breastfeeding for 6 months, although she only had 3 months before returning to work. When called on day 3, she stated she would continue for 3-6 months.

One mother, who had planned to breastfeed longer than 2 weeks, was now planning to nurse longer than 2 months. The remaining mothers were sticking to their original estimates, which included 2 months (1), 3 months (1), 6 months (2), 8 months (1), 9 months (1), and 1 year (1).

Question 3: What kind of help are you receiving?

Answers fell into the general categories of assistance from family members, literature, and information taught by professional educators. Some subjects mentioned many sources of help. No subjects referred to health professionals in the hospital and, although all thanked me for my assistance during the telephone calls, only one person mentioned my intervention as a source of help. In Table 3, data are displayed by the number of times each source was mentioned. The sum of answers is greater than 100%, as most mothers identified more than one source of help. No other sources were cited besides those in Table 3.

Group 1

Family members were the sources of help most often identified by Group 1 members. Regarding family members, half of the sample (50%) identified their own mothers and husbands as important in helping them. Other family members cited were parents-in-law, sister, and aunt, with 12.5% naming each. Those subjects who referred to the baby's father were also married to the father.

Two members (15%) had read breastfeeding books, and considered them helpful. Only one person (12.5%) stated that the pamphlets distributed in the hospital were helpful. This is despite the fact that all the mothers probably received the pamphlets.

Table 3. Kinds of Help Identified by Mothers, by Group*

Source of Help	Group 1(n=8)		Group 2(n=9)	
	n	%	n	%
Family Members				
Husband	4	50.0	8	89.0
Mother	4	50.0	7	78.0
Parents-in-Law	1	12.5	1	11.0
Sister	1	12.5	2	22.0
Sister-in-Law	0	0	1	11.0
Brother	0	0	1	11.0
Grandparents	0	0	1	11.0
Maternal-Child Educators				
Childbirth Preparation Class	1	12.5	2	22.0
La Leche League	0	0	1	11.0
TeenAge Parent Program	1	12.5	0	0
Nurse Researcher	1	12.5	0	0
Printed Information				
Pamphlets	1	12.5	0	0
Breastfeeding Books	2	25.0	6	67.0
Magazines	0	0	1	11.0
Baby Care Book	0	0	1	11.0
Nobody Helped	1	12.5	0	0

*Percentages add up to more than 100%, as some subjects reported more than one source of help.

Maternal-child educators were each listed once (12.5%), to specifically include instruction in the TeenAge Parent (TAP) program in Tucson Unified School District, in childbirth classes, and from the nurse researcher.

One mother stated, "Nobody at all." Later in the conversation I mentioned her husband as a possible source of support and she replied, "Well, somewhat." That husband was not included in Table 3.

Group 2

More sources of help with breastfeeding were identified by members of Group 2, possibly because they had two chances to think about the question and reply.

All members of Group 2 listed at least one family member who had helped with breastfeeding. The husbands were mentioned by 8 of the 9 group members (89%), and mothers by 7 (78%) members. The next most frequently cited source of help was breastfeeding books by two-thirds (67%) of the group. Only 3 of those persons (33% of the group) had been familiar with the books prior to my first call, and another 3 (33%) had purchased and read at least one recommended book prior to the second call.

Two mothers (22%) had learned information that helped them with breastfeeding during their childbirth education classes and 2 (22%) cited friends and sisters as being helpful, particularly in assisting with household chores. The remaining sources of help were identified by 1 individual (11%) each: parents-in-law, sister-in-law, grandparents, La Leche League, magazines, and a general baby-care book.

One person also stated (at the first call only) that she would call the newborn nursery at the hospital if she needed help.

By combining selected data from both groups in Table 3, a list of the most common sources of help for the sample was compiled for Table 4.

Table 4. Most Common Sources of Help Cited by Breastfeeding Mothers*

Source of Help	Population Citing (n=17)	
	n	%
Husband	12	71
Mother	11	65
Breastfeeding Books	8	47
Childbirth Education	4	24
Sisters	3	18

*Percentages add up to more than 100%, as some subjects reported more than one source of help.

Table 4 indicates the five most common sources of help for the total survey population. Family members were the most important support people, with 12 (71%) indicating they had received assistance from their husbands, and 11 (65%) having been helped by their own mothers. The fifth most common source of help was from sisters.

Breastfeeding information was also made available through books and various childbirth education classes. Eight study members (47%) had received information through childbirth classes that helped them with breastfeeding.

Question 4: What problems (if any) are you having with breastfeeding?

Group 1

Concerns listed by Group 1 included one mother's fear that the infant's spitting might be because of something she was doing wrong (1 or 12.5%). She and another mother (total of 2 or 25%) complained of the infant's spitting. One mother (12.5%) complained of "colic" and constipation in the infant, and voiced her fear that the infant was not getting enough at feedings. She further worried about when to start the infant on foods. One mother complained of engorgement, but did not consider it a problem. The mothers in Group 1 went 10 days before the nursing intervention telephone call, and only 3 (38%) of Group 1 reported that they had had no problems.

Group 2

In this group, 7 members (78%) stated that they were having no problems by day 10. Although 3 members (33%) reported breast engorgement at some time during the first week, and 2 (22%) reported breast tenderness, all 5 stated that they would not consider the symptoms to be a problem--this was consistent with a similar statement from the 2 mothers in Group 1 who encountered breast discomfort.

One mother (11%) was hospitalized for one day for diagnosed mastitis. She expressed milk during the hospital

stay, and resumed breastfeeding with no setback. The only other identified problem in Group 2 was that the infant of one mother had spent an entire day and night screaming and was spitting, burping, and passing gas.

Table 5 is a compilation of all problems reported by both groups. Percentages add up to more than 100% because data displayed was based on all responses and some mothers encountered more than one problem.

Table 5. Problems Reported by Breastfeeding Mothers During the First 10 Days at Home*

Problem Encountered	Group 1(n=8)		Group 2(n=9)	
	n	%	n	%
No Problems	3	38.0	7	78.0
Infant Problems				
Colic, constipation	1	12.5	0	0
Acting hungry	3	37.5	0	0
Spitting, burping, passing gas	2	25.0	1	11.0
Maternal Problems				
Sore, cracked nipples	1	12.5	0	0
Mastitis	0	0	1	11.0

*Percentages add up to more than 100%, as some subjects reported more than one problem.

Analysis of Success or Failure at Breastfeeding

As stated previously in Chapter 1 (page 9), no attempt was made to quantify success of the breastfeeding experience, nor were the individual mothers asked to evaluate their own performance in terms of success or failure. In

order to subjectively evaluate a mother's success in breastfeeding, three previously established criteria were used. They were:

1. Mother must still be breastfeeding on day 10;
2. She must subjectively state that her breastfeeding experience is successful (or going well); and
3. She must state that she intends to continue breastfeeding as long as originally planned.

If the mother had decided to cease breastfeeding earlier than her stated plans as recorded in the hospital (Appendix D), this constituted early discontinuation and therefore, failure. Distribution of group members according to criteria for breastfeeding success is shown in Table 6.

Table 6. Prospective Continuation of Breastfeeding by Group

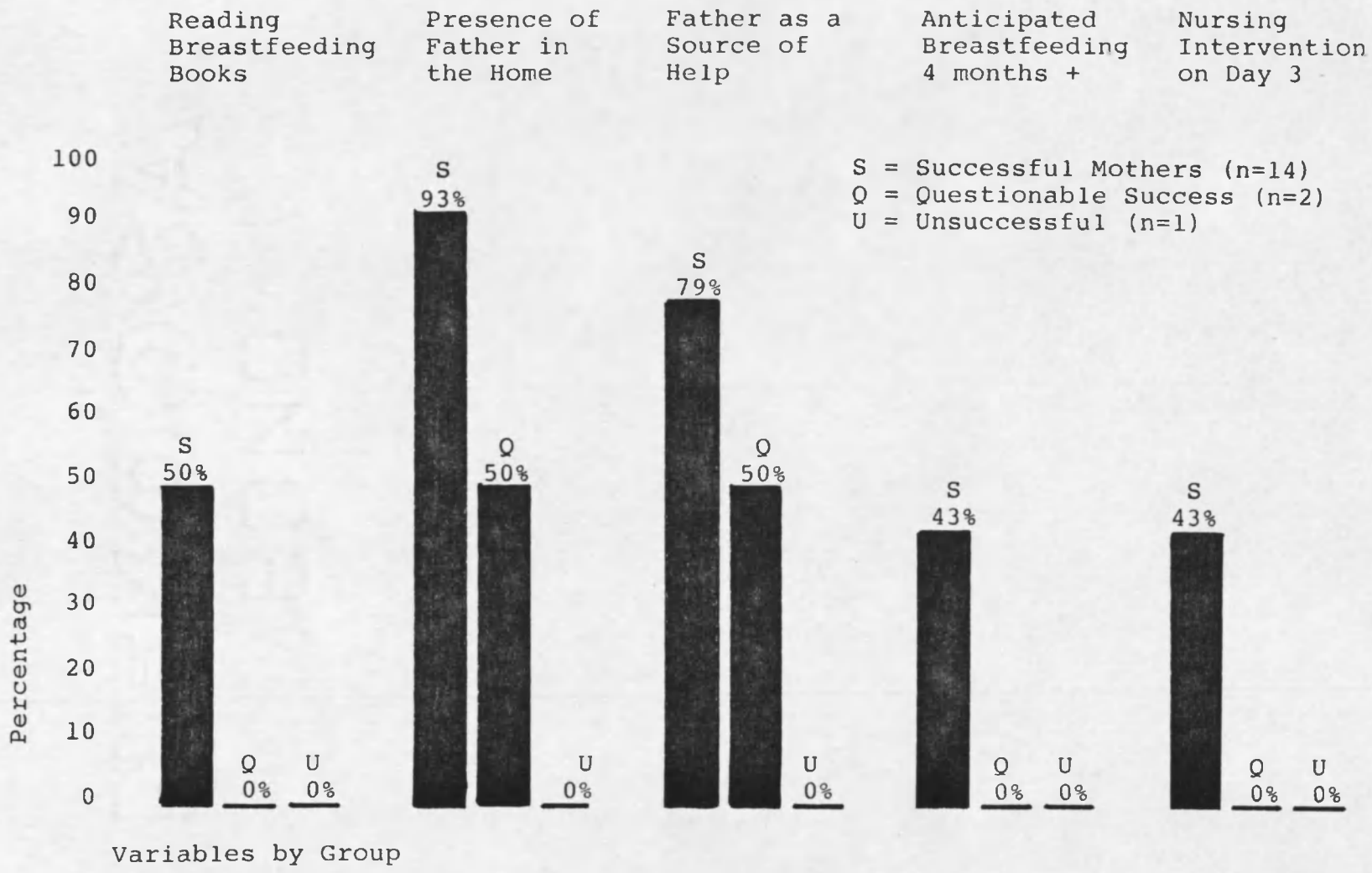
		Breastfeeding on Day 10		Stated Success		Intention to Continue	
		n	%	n	%	n	%
Group 1 (n=8)	Yes	7	87.5	7	87.5	5	62.5
	No	1	12.5	1	12.5	1	12.5
	Unsure	0	0	0	0	2	25.0
	Totals	8	100.0%	8	100.0%	8	100.0%
Group 2 (n=9)	Yes	9	100.0	8	88.0	9	100.0
	No	0	0	0	0	0	0
	Unsure	0	0	1	11.0	0	0
	Totals	9	100.0%	9	99.0%	9	100.0%

On day 10, all members of Group 2 (those who had received nursing intervention on day 3) were still breastfeeding and were certain of their intention to continue. One mother stated that she was "discouraged" on day 10, but she also stated that she planned to breastfeed for 3-6 more months.

In comparison, Group 1 had one member (12.5%) who had already discontinued breastfeeding prior to day 10. In this group, all seven of the members who were still breastfeeding were making statements subjectively interpreted to indicate success. However, two of those (25% of total) were unsure if they would continue as long as originally planned, so a total of three members (37.5%) had either discontinued or were seriously considering early discontinuation. Inability to positively state intention to continue breastfeeding on day 10 was interpreted as likelihood to discontinue breastfeeding earlier than planned.

For further interpretation of findings, the groups were combined to discover if any overall patterns related to breastfeeding success or failure were evident. Figure 1 is a bar graph showing the five factors most frequently identified among successful breastfeeders. In the combined group, there were a total of 14 successful mothers, two with questionable success (at risk for early discontinuation), and one unsuccessful mother. In addition to support persons

Figure 1. Factors Associated with Successful Breastfeeding on Day 10



available, the successful mothers also tended to prepare themselves by reading breastfeeding books and by establishing an anticipated length of breastfeeding longer than 3 months.

Among successful breastfeeders, the most common factor found was presence of the infant's father. He was present in 93% of the homes and perceived as a helpful or supportive source by 79% of these mothers. The father was absent and not perceived as supportive by the unsuccessful mother and one of the at-risk mothers.

Of the questionable and unsuccessful mothers, none had prepared for breastfeeding by reading any relevant books, and all had anticipated an experience of 3 months or less. This could be interpreted as a limited conviction toward long-term breastfeeding. In contrast, 50% of the successful breastfeeders had read one or more breastfeeding books, and 43% of them intended to breastfeed 4 months or longer.

Therefore, when interpreting findings of the study, five factors were found to be recurrent means of providing information, guidance, and support to the breastfeeding mothers. These factors were reading of breastfeeding books, the presence of the newborn's father in the home, father perceived as a source of help, and the mother's decision to breastfeed for 4 months or longer. An additional factor that seemed to influence success for some mothers

was the nursing telephone contact during the first week at home following hospital discharge. Nursing intervention, then, ranked as one of five major factors that seemed important for success in breastfeeding.

CHAPTER 5

SUMMARY AND CONCLUSIONS

This final chapter will summarize the study, compare results with previous research, and will then make recommendations concerning implications for nursing care and research.

Comparison of Findings with Literature

Findings of this study concurred with findings of similar studies in the literature regarding the legitimate role of the professional nurse in assisting breastfeeding and the timing of the nursing intervention.

The nurse as breastfeeding educator can enter the health care system for the maternity client at any point in the pregnancy and begin providing information in the selection of breastfeeding as the infant feeding method of choice.

In this study, however, contact between nurse and new mother was not initiated until the postpartum stage. The role of the nurse was in follow-up after discharge, and included provision of information, guidance, and support by telephone contact. Mothers were offered expert help in solution of their early problems. They were given guidance

to prevent common problems, and they were offered resources to help them learn more about breastfeeding and infant care.

In three cases, the mothers who did not have strong support for breastfeeding were confronted with problems they had difficulty handling and had not sought help prior to my call. In other societies, where there is a broad base of support persons who are skilled in breastfeeding, novices have experts to whom they can turn (Helsing, 1976; Klaus and Kennell, 1976; Olson, 1978; Raphael, 1973). This is often not the case in our society and mothers without a resource person frequently encounter disruptive problems in breastfeeding and ultimately fail at this mothering task. This predisposition to failure has been shown by Raphael (1973) to be related to a non-supportive environment in which simple unresolved anxiety triggers lactation suppression.

By contrast, those mothers who were contacted early after arrival at home were offered the opportunity to discuss their fears and ask questions. Once they identified the nurse as a resource person, their questions were forthcoming. A similar finding was made by Hall (1978) who stated that the mothers in her study realized the importance of continued support from the nurse once they were home. Provision of information and support as the primary role of the nurse assisting breastfeeding was shown in this study

and is in agreement with previous works (Auerbach, 1979; Bishop and Bishop, 1978; Hall, 1978; Leighton, 1978; Murdaugh and Miller, 1972).

The eagerness with which mothers accepted the breastfeeding information appeared clear to the researcher. On the second call, all mothers in Group 2 (n=9) verbalized interest in the reading material and resources suggested. While three mothers had already read a book on breastfeeding prior to the first call, a second three purchased and read one or more books in the week between calls, and the remaining three stated that they were looking for the books to buy. All remembered that the La Leche League 24-hour crisis line was available, and stated that they had the phone number (given at the first phone contact). This increased knowledge and recall of resources among the breastfeeding population supported the findings of Murdaugh and Miller (1972) who stated that new mothers look to the nurse as an authority on breastfeeding whose suggestions will often be followed.

The timeliness of nursing intervention before day 10 was shown by the diminished success of three women who were not contacted until day 10. One had already quit and the other two were questioning their ability to continue. Studies by Lawson (1976) and Rising (1974) advised intervention during the first two weeks, but other researchers have

found that the most critical time for supportive-educative care is in the first few days at home (Donaldson, 1977; Hall, 1978; Raphael, 1976). Beyond the first week by themselves, new mothers often settle on less-than-optimal solutions for their infants and themselves.

Contact on day 3 in this study appears to have been beneficial to the mothers involved. By this time, they had formulated questions and explored alternatives, but all were receptive to suggestions that might help make their breastfeeding experience smoother. The three unsuccessful mothers in Group 1, in contrast, expressed resistance to changing their care techniques or had given up trying by day 10. This would add to the accumulating evidence that there may be a critical time for nursing intervention in assisting breastfeeding with early attention to potentially irreversible problems.

Nursing Implications and Recommendations

The need for teaching of maternity clients has been established and determining effective methods to institute the teaching is the most important nursing implication. All nurses having contact with maternity clients have an obligation to keep informed about breastfeeding so that they may pass on accurate knowledge. The maternity client may have contact with nurses in community health, in outpatient clinics, in private health practices, and on maternity and

newborn nursery units. In addition, all nurses need to be aware of the elusive nature of breastfeeding success in the absence of knowledge and of a supportive environment.

Inpatient education by nurses on the maternity unit should be a continuous service. An organized teaching program could be devised for presentation to all mothers, along with infant care and self-care topics. An effective program might include presentation of instructional material every other day so all mothers would attend at least once prior to discharge. At the teaching session, the nurse has the opportunity to complete her teaching checklist for each mother. If a teaching checklist is not already in use, the guidelines suggested by Jarkowsky (1980) could be instituted.

Included in patient handouts should be both a list of common problems and suggestions as well as a resource list. The resource list devised for this study is a half-sheet of paper with a list of breastfeeding books written for the breastfeeding mother. Also included are the name of an inexpensive breastpump and the La Leche League 24-hour telephone numbers. Copies of this list (Appendix G) will be distributed to the inpatient and outpatient nursing units at Hospital X for continuous duplication and distribution.

This study validated the need for nurses to extend their services during the early postpartum period in the

form of breastfeeding assistance. Data generated point out the need to make contact during the first few days the mother and infant are home when initial problems have been realized. The nurse can offer solutions that will enhance rather than disrupt breastfeeding and can assess the presence of health problems over the phone. A second follow-up call one to two weeks later should serve to bridge the gap until the mother becomes independent or aligns herself with another supportive person.

Expanding knowledge about the intricacies of successful breastfeeding and the nurse's role in assisting breastfeeding will require ongoing nursing research. Although the data collected in this study support the findings in the literature, research and dissemination of findings are not yet exhaustive.

For the pragmatics of the investigation itself, large blocks of time were found to be necessary for the recruitment of subjects and conduct of this study. The time investment was considered an absolute necessity in the establishment of rapport and a trusting, supportive relationship. Other demands on the researcher's time cost the loss of potential subjects when they could not be reached by phone. To enhance replication of this study, then, the nurse needs to plan for large amounts of time to collect data.

Feasibility studies are also recommended to determine the amount of time necessary for a staff nurse to follow-up all breastfeeding mothers by telephone after discharge. If mothers were prepared with information during their hospital stay, the nurse-hours for telephone follow-up might be minimal. If the task is costly in nurse-hours, a hospital might consider hiring an additional nurse with expertise in breastfeeding counseling. To establish the need for this nursing position on the inpatient staff, a unit might perform a trial study. The study conducted over a few months might include simply comparing continuation and perceived success among new mothers who were contacted once or twice during their first weeks at home with those not contacted for four-to-six weeks.

Future comparisons to be researched could include: a) presence or absence of newborn's father in the home; b) advance preparation for breastfeeding through organized classes and/or reading; and c) motivating factors that determine how long a mother anticipated (desired) breastfeeding.

Statistical testing might be included in future studies to determine associations and their significance. It is strongly recommended that subjects answer a questionnaire to determine their individual resources and support sources for successful breastfeeding. To discover if

subjects consider information from the nurse to be helpful, all participants should be asked this on the questionnaire. Further, they should be asked to rate their own level of success according to pre-established criteria.

Because the interview guide in this study was left unstructured to determine the informants' perceptions, much information was lost. Specifically, it was difficult to delineate patterns when subjects used their own words. Interpreting the data included detecting parallels in subjects' responses; this would have been simplified if subjects had been given choices. For example, it was difficult to assess "success" in continuation of breastfeeding relevant to the two mothers who were seriously considering early discontinuation. Asking for the mothers' self-evaluation of success would have been helpful.

Further, in determining sources of help, the answers were limited to what the individual informant could think of during the telephone call. As stated in the study, the responses do include some things that the individuals considered helpful. But there may have been many other equally important sources of help not remembered during the phone call. This was suggested from the responses made by Group 2 in this study when new categories were mentioned during the second call or a person or object mentioned during the first call was left out. When questioned about

this, most mothers said they had "forgotten." Other important support sources that could also have been forgotten may have been friends who had breastfed, nurses and health care providers who had provided information, childbirth education classes, or meaningful articles read.

In sum, determination of factors that accompany successful and long-term breastfeeding is important for nurses in community and maternal-child health settings. Further research is recommended to gain more knowledge of these factors in order that the nurse involved in breastfeeding education can more fully prepare her clients to anticipate and prevent problems.

APPENDIX A

THE UNIVERSITY OF ARIZONA
TUCSON, ARIZONA 85724
HUMAN SUBJECTS COMMITTEE
ARIZONA HEALTH SCIENCES CENTER 2305
TELEPHONE: 626-6721 OR 626-7575

10 March 1981

Meribeth Meixner Reed, R.N.
233B South Kolb Road
Tucson, Arizona 85710

Dear Ms. Reed:

We are in receipt of your project, "Nurse-Initiated Telephone Contact and the Continuation of Breastfeeding", which was submitted to the Human Subjects Committee for review. We concur with the opinion of your Departmental Review Committee that this is a minimal risk project. Therefore, approval is granted effective 10 March 1981.

Approval is granted with the understanding that no changes will be made in either the procedures followed or in the consent form used (copies of which we have on file) without the knowledge and approval of the Human Subjects Committee and the Departmental Review Committee. Any physical or psychological harm to any subject must also be reported to each committee.

A university policy requires that all signed subject consent forms be kept in a permanent file in an area designated for that purpose by the Department Head or comparable authority. This will assure their accessibility in the event that university officials require the information and the principal investigator is unavailable for some reason.

Sincerely yours,

Milan Novak

Milan Novak, M.D., Ph.D.
Chairman

MN/jm

cc: Ada Sue Hinshaw, R.N., Ph.D.
Departmental Review Committee

APPENDIX B

THE UNIVERSITY OF ARIZONA
HEALTH SCIENCES CENTER
TUCSON, ARIZONA 85724

UNIVERSITY HOSPITAL

April 10, 1981

Meribeth Mexiner Reed, R.N., B.S.N.
233B South Kolb Road
Tucson, Arizona 85710

Dear Ms. Reed:

It is a pleasure to approve your request to conduct your thesis research; "Nurse-Initiated Telephone Contact and the Continuation of Breastfeeding" at Arizona Health Sciences Center on the post-partum and nursery units. Ms. Becky Hull (Assistant Director of OB/GYN) and Ms. Lisa Miles (Coordinator of Pediatrics) will be your contact individuals for the post-partum and nursery units respectively.

The nursing staff will look forward to receiving an abstract from your research findings and receiving feedback on the results. If you need further help or have questions, please do not hesitate to contact me.

Sincerely,

Ada Sue Hinshaw

Ada Sue Hinshaw, R.N., Ph.D.
Associate Director of Nursing
for Research
Nursing Department
University Hospital

/mnp

APPENDIX C

SUBJECT'S CONSENT FORM

A study is being conducted entitled: "Effect of a Nurse-Initiated Telephone Call on Continuation of Breastfeeding." Women who are breastfeeding for the first time and who volunteer to be interviewed will be participants in the study. The purpose of the study is to gain knowledge that will help nurses to help breastfeeding mothers. In order to obtain the information needed for this study, you will be contacted at home by phone during the first two weeks you and your baby are home. You will be interviewed one or two times; each interview is expected to take ten-to-fifteen minutes. You will be asked brief questions about yourself and how other people have helped you regarding breastfeeding. You will be free to ask questions at any time.

If you choose to participate, there will be no cost to you, nor will there be any monetary payment. There are no known risks to you. The anticipated benefits are the gaining of knowledge to help other breastfeeding mothers, and the possibility that we can solve any problems you may have encountered while breastfeeding.

Participation is voluntary; you are free to not participate, and you are free to withdraw at any time. You have the right to not answer questions. Your choice to participate, not participate, or withdraw will not affect the care given you. If you participate, any questions you have about the study will be answered.

All identifying information, such as names and telephone numbers, provided on this form will be kept strictly confidential. Such information will not be given to any third party, including the Hospital. You will not be identified on the questionnaire by name or descriptive information, and analysis of the results will refer only to the group, not to an individual. The information gained will be used only for research and educational purposes, but may be published in professional literature at a later date.

I have read the above, I understand what it says, and I consent to participate in the breastfeeding study.

_____

Subject's signature and date

_____

Witness' signature and date

APPENDIX D

DEMOGRAPHIC INFORMATION

Mother's Name _____

Infant's Name and Sex _____

Date of Birth _____ Date of Discharge _____

Home Phone Number _____

Family Members at Home _____

_____

Ethnic Group _____

How Long Do You Plan to Breastfeed? _____

Mother's Age _____ Years of Education _____ Degree _____

Father's Age _____ Years of Education _____ Degree _____

When do you plan to return to work or obligations outside the home? or, How much time off? _____

APPENDIX E

TELEPHONE INTERVIEW GUIDE

1. How are you doing with the breastfeeding?

2. Are you planning to continue breastfeeding?

3. What kind of help are you receiving?

4. What (if any) problems are you having with breastfeeding?

APPENDIX F

POPULATION TABLES

Table 1. Distribution of Subjects by Age and Frequency of Telephone Contact

Age in Years	Group1(n=8)		Group 2(n=9)	
	n	%	n	%
15	1	12.5	0	0
17	1	12.5	1	11.0
19	1	12.5	1	11.0
20	0	0	1	11.0
22	0	0	3	33.0
23	1	12.5	0	0
24	0	0	1	11.0
25	2	25.0	0	0
26	0	0	1	11.0
28	2	25.0	0	0
31	0	0	1	11.0
Totals	8	100.0%	9	99.0%

Table 2. Distribution of Subjects by Level of Education and Frequency of Contact

Education in Years	Group 1(n=8)		Group 2(n=9)	
	n	%	n	%
10	2	25.0	0	0
11	0	0	1	11.0
12	1	12.5	2	22.0
13	2	25.0	2	22.0
14	0	0	1	11.0
15	1	12.5	0	0
16	1	12.5	3	33.0
18	1	12.5	0	0
Totals	8	100.0%	9	99.0%

APPENDIX G

RESOURCES FOR THE BREASTFEEDING MOTHER

BOOKS

1. The Complete Book of Breastfeeding by Marvin Eiger and Sally Olds (2 sizes, both softcover--the BEST book)

2. Nursing Your Baby by Karen Pryor (a very good book)

3. please breastfeed your baby by Alice Gerard (the shortest and easiest to read, 102 pages)

4. The Womanly Art of Breastfeeding by The LaLeche League

TUCSON LA LECHE LEAGUE

326-7456 or 623-4551 24-hour information and help

BREASTPUMP--The Natural Mother by Evenflo ($8-)

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