

THE EFFECTS OF PERSONAL AND
SOCIAL FACTORS ON MOTHERS SUCCESS
IN BREAST-FEEDING

by

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A THESIS

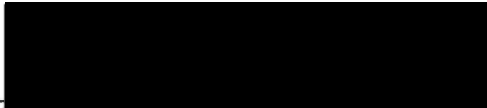
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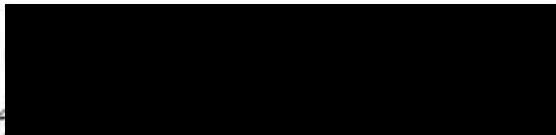
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CHAPTER I

INTRODUCTION

Recently there has been a shift in society to return to the "natural things" in life and with this shift has come increased interest in breast-feeding and its benefits to the mother and the infant. Supporting this resurgence of breast-feeding has been the publication of recent research establishing that breast milk is the best food for the newborn infant (American Academy of Pediatrics, 1978). Though an increasing number of American women are attempting to breast-feed their infants, the failure rate remains comparatively high (Decastro, 1968; Jelliffe & Jelliffe, 1978).

It is generally believed that breast-feeding, the act of putting a newborn to breast, is purely an instinctive activity. Ladas (1970) contends it is not. She believes it is a womanly art passed down from generation to generation in almost all cultures except in our contemporary American society. Cole (1975) and Salber and Feinleib (1966) have examined breast-feeding in America and report that in a complex society, like our own, there are a multitude of personal, social and environmental factors that may influence a woman's ability to perform the "natural" act of breast-feeding. Therefore, if one accepts the premise that breast milk and breast-feeding have distinct advantages over artificial milk and bottle-feeding then we clearly need to know as much as possible about the factors that influence a woman's choice of feeding method and the chances of her success with that method. The present study sought to add to the knowledge about the effects that certain personal and social factors in a

mother's background have on the outcome of breast-feeding.

Statement of the Problem

The recent emphasis on breast-feeding by health professionals has left many new mothers confused and in conflict with the feeding practices of the previous generation. Many of these mothers have commitments to breast-feeding but find themselves unable to succeed with their endeavors (Newton, 1971; Jelliffe & Jelliffe, 1971). Thus, these mothers often express feelings of guilt that they are not doing what is best for their baby and a sense of failure because they are not able to achieve their perception of the maternal role. Therefore, it is essential that health professionals and health educators be well prepared to assist new mothers with their breast-feeding attempts. Included in the professionals preparation should be a basic understanding of what personal and social factors in a mother's background may affect her breast-feeding outcome. Such knowledge would assist health personnel to identify the population at risk of being unsuccessful with breast-feeding and institute appropriate intervention.

Considerable information exists in literature concerning what personal and social factors in a mother's background influence her choice of feeding method but very little information is available on the influential effects these factors have on the success of breast-feeding. Therefore, this researcher was interested in examining the effect certain personal and social factors have on the outcome of breast-feeding. Factors of particular interest were: 1) the frequency and years of doll play enjoyed by the mother as a child; 2) the mother's exposure to breast-feeding before childbirth; 3) support the mother had from the baby's father about breast-

feeding; 4) area of mother's upbringing; 5) mother's feelings of embarrassment about breast-feeding; 6) method by which the mother was fed as an infant; and 7) mother's femininity.

Statement of Purpose

The purpose of this study was to examine the effect of the following factors on the success of breast-feeding: method by which the mother was fed as an infant, the amount of doll play enjoyed by the mother as a child, mother's exposure to breast-feeding before childbirth, support the mother had from the baby's father about breast-feeding, area of mother's upbringing, mother's feelings of embarrassment about breast-feeding and mother's femininity.

To accomplish the above, two hypothesis were tested.

1. Women who strongly identify with the traditional feminine personality stereotype, as measured by Spence's Personal Attributes Questionnaire, will be more successful with breast-feeding than women who weakly identify with the traditional feminine personality stereotype.

2. Women who score high on a number of the examined factors (frequency and years of doll play enjoyed by the mother as a child, mother's exposure to breast-feeding before childbirth, mother having support from the baby's father about breast-feeding, mother having grown up in a rural area, mother not feeling embarrassed about breast-feeding and mother having been breast-fed as an infant) will be more successful with breast-feeding than mothers who score low on these factors.

Definition of Terms

Token breast-feeding --- the mother supplements her breast-feeding with artificial formula by offering her infant an occasional or frequent bottle.

Total breast-feeding --- the mother does not supplement her breast-feeding with artificial formula.

Successful breast-feeding --- the ability of the mother to breast-feed, either totally or token, for two months post-partum.

Review of the Literature

Many mothers anticipate breast-feeding their infant but find they are unsuccessful. Because of this they may experience a sense of failure in their perception of their maternal role. It is therefore important that the current knowledge of the advantages of breast-feeding be re-examined to determine the rationale for encouraging breast-feeding. Review of the literature shows that there are distinct advantages to breast-feeding. These advantages are categorized under the heading of physical and psychological for both the infant and the mother.

Advantages of Breast-feeding for Infant and Mother

Human milk has been recognized as a uniquely complex secretion with many marked differences from cow's milk or cow's-milk-based formula (artificial formula), (Foman, 1967; Gyorgy, 1971; Jelliffe & Jelliffe, 1978). It is reported to contain over 100 constituents which are present in different proportions and in different chemical forms than found in any other milk (Jelliffe & Jelliffe, 1978) making its unique biochemical make-up precisely tailored for the nutritional needs of the human infant.

Investigations which have focused on the anti-infective properties of human milk generally found it to have distinct immunological advantages not present in cow's milk or artificial formulas (Applebaum, 1970; Mata & Wyatt, 1971; Jelliffe & Jelliffe, 1978; Winikoff, 1978).

Human milk is definitely more effective than cow's milk in protecting the newborn against infection through a greater concentration of secretory IgA, antibodies against human pathogenic bacteria and viruses, and a greater concentration of bifidus factor and lysozme (Mata & Wyatt, 1971, pp. 983).

Recent studies continue to give evidence that a significant health-promoting effect of human milk exists, even in highly sanitary and educated areas. Cunningham's (1977) study of infants in upstate New York in 1974-75 found a significant difference in the number of illnesses and hospitalizations, during the first year of life, between breast and bottle-fed infants. Breast-fed babies enjoyed a definite health advantage.

It has been known for many years that the incidence of allergic disease in bottle-fed babies is far higher than in those breast-fed (Foman, 1967; Jelliffe & Jelliffe, 1978). Gruler, as early as 1934, reported that infants fed artificial formula in the U.S. suffered seven times more infantile exzema and other allergic conditions than infants fed human milk (Jelliffe & Jelliffe, 1978, pp. 97). Presently Jelliffe and Jelliffe (1978) report that infantile allergic conditions, types and number, appear to be increasing in the U.S. and other Westernized communities where bottle-fed substitutes to human milk are the usual choice of feeding.

Matthew, Taylor and Norman (1977) emphasize the breast-feeding with the avoidance of the introduction of semi-solids until four to six months of age is the best prophylactic action against food allergy in infancy.

Some authorities postulate that the breast-fed infant has a lesser chance of becoming obese in later years than does the bottle-fed infant (American Academy of Pediatrics, 1978). The relationship between infant feeding and adult obesity is still poorly understood but Christian (1979) asserts that the breast-fed infant doesn't learn to overeat since his demands regulate the amount of milk he gets from the breast. In contrast, the formula fed infant is made to conform to the mother's demand to empty the bottle.

Proponents of breast-feeding have long claimed it is uniquely different from artificial feeding in regards to a number of psychological advantages for the infant. However, findings from research studies which have attempted to provide evidence to support this view are inconclusive (Caldwell, 1964). Newton (1971) contends that if these studies placed more emphasis on the total feeding experience, rather than on the mechanical duration of breast-feeding, more comprehensible relationships would be found.

The importance of early oral needs was recognized by Sigmund Freud when he postulated his psychosexual stages. He believed that the child, during his "oral erotic" stage (from birth to eight months) derived almost all his pleasure from sucking. If the child's sucking time was not met then he would develop life-long "oral bad habits" (McConnell, 1974). Other authorities agree with this and further recognize sucking as an important coping mechanism for the infant (Blake, Wright & Weachter, 1970; Stone & Church, 1968).

Newton (1971), Jelliffe and Jelliffe (1978) and Applebaum (1970) all report that breast-fed infants enjoy more sucking time because the sucking activity by the breast and bottle-fed infant are mechanically dissimilar

in quality and duration. As a result the bottle-fed infant obtains his formula more easily, rapidly and with less sucking activity, thus the baby derives less pleasure from sucking.

An immediate physiological benefit for the breast-feeding mother is more rapid involution of her uterus (Guyton, 1971). Sensory nerves present in the nipple and in the areola are stimulated by the milking act of the sucking infant. This suckling stimulus elicits nervous impulses to be sent to the neurohypophysis via the spinal cord. The neurohypophysis releases oxytocin which causes the uterus to contract. These contractions hasten involution of the uterus and expulsion of excess tissue and blood (Mack & Sherman, 1971; Hassid, 1978).

Three benefits may result from early involution: it eliminates the need for drugs that are given to non-nursing mothers to stimulate the uterus to contract and drugs to inhibit the "let-down" response, it helps women regain more rapidly their pre-pregnant figures, and these women may find uterine contractions sexually pleasurable, often heightening their desire to reassume sexual relations following delivery (Christian, 1979; Master & Johnson, 1966).

Another benefit for the nursing mother is in the form of natural post-partum weight loss. During pregnancy about 5 to 10 pounds of subcutaneous fat is laid down physiologically as calories for lactation. The process of breast-feeding draws upon this maternal fat store leading to a slimming effect. Dennis (1971) conducted a study on post-partum mothers and reported that breast-feeding mothers had lost 2 pounds more than bottle-feeding mothers by three months after delivery.

Breast-feeding can act as a natural means of child spacing. This pregnancy spacing effect of lactation occurs by extending the length of

post-partum amenorrhea. This is accomplished by a hormonal change in the concentration of prolactin in breast-feeding mothers (Short, 1976; Jelliffe & Jelliffe, 1978; Tyson, Freedman, Perez, Zacur & Zanartu, 1976; Tolis, Guyda, Pillorger & Friesen, 1974). However, Winikoff (1978) and Short (1976) emphasize that the secretion of prolactin has been shown to vary quantitatively with the sucking stimulation to the breast. Suckling throughout the day and night with no supplemental bottles, pacifier or solid foods allows for sufficient stimulation of prolactin production to continue suppression of ovulation. If breast-feeding is supplemented early with formula and/or table food, the contraceptive effect of breast-feeding is greatly reduced.

Recent researchers have postulated the possibility that prolonged lactation may be protective against the development of breast cancer. Newton (1971) reports that in countries, such as Japan, where women breast-feed for long periods of time the incidence of breast cancer is low. Schaefer (1969) further supports this theory with his findings on Eskimo women. He reports an incidence of approximately 0.6 per 100,000 population per year.

However, the mechanism and the effect, if any, lactation has on breast cancer is not well understood and further research is necessary before a definite relationship can be established.

Most mothers derive pleasurable sensations from the sight, smell, cry and closeness of their babies but the breast-feeding mother may also experience a sexual enjoyment that bottle-feeding mothers do not. Via cutaneous, hormonal and psychological channels the lactating mother may respond pleurably to nipple stimulation of breast-feeding and to hormonally stimulated uterine contractions and rise in mammary skin temperature

(Jelliffe & Jelliffe, 1978).

Klaus and Kennell (1976), Wolff (1976) and Hales, Lozoff, Sosa, and Kennell (1977) and others have conducted studies on the process by which the human mother and child establish a close emotional relationship that will grow, develop and mature during their life time. They have demonstrated that skin-to-skin contact and en-face position between mother and infant immediately following birth is a crucial factor in the establishment of attachment.

Breast-feeding is an ideal way to promote such activity. It allows the mother and infant close skin-to-skin contact and Jelliffe and Jelliffe (1978) report that continuing eye-to-eye contact is more likely if the infant is being held at the breast level rather than bottle-fed on the mother's lap. Breast-feeding is dyadic in nature. It is not merely a mechanical procedure for supplying nutrients to the baby, but also is a psychosocial communication and a sociocultural behavioral exchange between the mother and infant dyad (Jelliffe & Jelliffe, 1978).

Personal and Social Factors of Breast-feeding

Since breast-feeding has definite advantages for both the mother and infant it is important to know the factors which influence successful lactation. Review of the literature reveals that a large number of studies have been done to ascertain the reasons for the great variations in the breast-feeding patterns of modern women. To provide a background for this study the review of the literature includes significant studies by internationally recognized authorities. These studies have examined such topics as, frequency and duration of breast-feeding, the sociological variables effecting breast-feeding outcome and support persons who play a role in the mother's breast-feeding experience.

Frequency and Duration

There has been a general decline in the practice of breast-feeding over the last century. Meyer (1968) documented this trend in the United States. In 1946 he found that 38% of infants were totally breast-fed at the time of discharge from the hospital, while by 1966 this number had dropped to 18%. When partially breast-fed infants were included in the discharge statistics for these two years the percentages were 65 and 28, respectively. Meyer also reported regional variations for this time period. The northeastern states tended to have the lowest rates for breast-feeding, while the Rocky Mountain and western states had the highest. Breast-feeding declined by 14% in the state of Oregon between 1946 and 1966 compared to the national drop of 37% between those years. The studies of Robertson (1961) and Salber, Stitt and Babbott (1958) further supports regional variation in frequency of breast-feeding.

Brimlecombe and Cullen (1977) commenting on the differences in regional variation reported that women in England who live in the rural areas elect to breast-feed more often and breast-feed longer than women who live in non-rural areas. Conversely, Meyer (1968) found that suburban mothers are more likely to breast-feed than urban or rural mothers. However, Robertson (1961) reported that he found no difference between rural and non-rural mothers.

Winikoff (1978) contends that in the United States the low point in breast-feeding was reached in the late 1960's when only one-fifth of the mothers breast-fed. In the early 1970's the United States and other western cultures experienced a resurgence of breast-feeding. By 1975, thirty-three percent of all American mothers were breast-feeding their infants at one week of age (Winikoff, 1978). Surveys by Mead Johnson

Company and Ross Laboratories in 1976 found that 53% of infants in the United States and 48% of those in Canada were breast-fed at the time of discharge from the hospital (American Academy of Pediatrics, 1978).

Studies have shown that there is a wide variation in frequency of breast-feeding according to social class. Salber and Feinleib (1966) report that in 1930 Garland and Rich found that the highest frequency of breast-feeding was among women in lower classes. This was verified in 1946 by Davis and Havighurst (1955) in Chicago. More recent studies have shown the reverse to be true (Salber & Feinleib, 1966; Cole, 1975).

Salber and Feinleib (1966) conducted a study involving 2,233 post-partum mothers in the Boston area. They found that 23% had attempted to breast-feed their babies. Of those mothers who were college students or married to college students 69.3% had breast-fed. Of those in the upper social class 39.8% had attempted to breast-feed while only 13.6% of those in the lower social class breast-fed. Guthrie and Guthrie's (1966) study of 129 middle class mothers, in a college community, suggest that breast-feeding increases in middle class mothers as education increases. Robertson's (1961) study involving 1,275 mothers, from throughout the United States, found similar results. He reported that college education, high social status and previous exposure to breast-feeding all contribute to success. This relationship of upper social class and education with breast-feeding has also been reported by Ross Laboratories (1978) and Prothero (1969).

Even though there has been an increase in the frequency of breast-feeding during the 1970's there has not been an increase in duration to complement this trend. Caldwell (1964) reported that in 1929, seventy-seven percent of all babies that were breast-fed at birth were still being

breast-fed at three months. This number dropped to 36% in 1949 (Meyer, 1968). Ten years later Salber, Stitt and Babbott (1959) study of 111 mothers reported that the median time for complete weaning in their population was 1.9 months. Women from upper classes breast-fed slightly longer, averaging 2.25 months, while women from lower classes breast-fed for an average of 1.5 months. Jackson, Wilkin and Auerbach (1956) likewise found a longer duration of breast-feeding among better educated, older and black mothers. However, no difference in duration could be found between clinic and private patients. In 1963 Salber and Feinleib (1966) conducted a study in Boston. They found that 20% of the mothers who attempted breast-feeding had terminated by one month and 58.4% by three months.

Sjolin, Hofvander and Hillervik (1977) reported from a survey they conducted with 289 Swedish mothers, that 58.1% totally or partially breast-fed their infants at one month but only 19.5% were attempting to breast-feed by three months. A similar study was conducted by Prothero (1969) in England, on 584 post-partum mothers. He found that 41% started to breast-feed but only 33% breast-fed beyond the neonatal period and only 15% beyond 3 months. A positive relationship between education, upper social class and duration of breast-feeding was also reported by Prothero.

Sociological Factors

Authorities hypothesize that when women's role in society is not clearly defined there is conflict between her personal ambitions and her biological make-up and breast-feeding is affected (Brown, Lieberman, Winston & Pleshette, 1960; Meyer, 1968; Jelliffe & Jelliffe, 1978). Such a conflict has been reported to exist in our society today by Cohen (1966) and Block (1973).

Block (1973) reported that the socialization process for women tends to reinforce the nurturant, docile, submissive and conservative aspects of the traditionally defined female role and discourages self-assertiveness, achievement orientation and independence. This finding was supported by Spence, Helmreich, and Stapp (1974) when they studied 530 college students and found that a definite sex role stereotype for both men and women still exist in our contemporary society. That is, they found a definite difference in many characteristics of men and women. Their population, of 248 men and 283 women, attributed the qualities of being dependent, emotional, very kind and gentle, helpful, understanding and thoughtful of others, submissive and very warm to others as feminine characteristics. The more of these characteristics a person possesses the more feminine the individual is thought to be.

When the masculine and feminine characteristics of women are examined in relation to lactation, evidence seems to suggest that there is a positive correlation, between desire to and success with breast-feeding and female sex stereotype. Adams (1959) found from her interview with 60 post-partum mothers that those subjects choosing to bottle-feed were more independent, rejecting of the child, dissatisfied with the sex role, and had more psychosexual disturbances than breast-feeding mothers. Newton (1971) reports that breast-feeding mothers are more accepting of the female biologic role while women who bottle-feed are more likely to express the feeling that men have a more satisfying time in life.

Brown, Chase and Winston (1961) measured unconscious feelings of 110 primiparous mothers via the Rorschach test and found that mothers choosing to breast-feed show a stronger need for affection and reassuring tactile contacts with other people than mothers who choose bottle-feeding. Other

investigators (Brown, et al., 1960) report that the histories of women who breast-feed show that they have a greater capacity to derive pleasure in doll play, in caring for younger children, in showing interest in babies, and in the tendency to indulge in fantasies of some day having babies of their own.

The above studies indicate that predetermined emotional components, often unconscious, will influence whether or not a woman decides to breast-feed and her degree of success once this is undertaken. Guthrie and Guthrie(1966),Jeffs (1977) and Salber, et al. (1958) further substantiate this view by reporting that the majority of mothers in their studies had decided how they were going to feed their infants before pregnancy or by the first three months of the pregnancy.

Studies have been undertaken in an attempt to determine the influence of the maternal grandmother's feeding practices upon the new mother. Salber, et al. (1958) reported on the only study done in the United States. They surveyed 114 women who attended the Family Health Clinic in Boston and found that the maternal grandmother's feeding practice did not effect the frequency or success of their population in respect to breast-feeding. A generation later Sloper, McKean and Baum (1975) surveyed 145 post-partum mothers in England. They found that of the 60 mothers who were breast-fed as infants, only 28% were unsuccessful in breast-feeding, whereas of the 21 mothers who were bottle-fed, 66% were unsuccessful in breast-feeding. Jeffs (1977) study with 130 post-partum mothers and Brimlecombe and Cullen (1977) study with 500 mothers, in England, also found that the feeding method experienced by the mother was associated to her success in breast-feeding.

Brimlecombe and Cullen (1977) further report that primiparous mothers

are more likely to breast-feed than multiparous mothers who had not breast-fed previously. However, if the mother had breast-fed a previous infant she is more likely to breast-feed a subsequent child. Robertson (1961) and Salber & Feinleib (1966) also reported a slightly higher rate of breast-feeding by primiparous mothers.

Experiences of friends or relatives are strongly correlated with the success of breast-feeding. Jones and Belsey (1976) and Jeffs report that women with friends or relatives who have breast-fed successfully are more likely to choose the same method, whereas women whose friends or relatives had problems with breast-feeding are more likely to bottle-feed. Jones and Belsey (1976) study with 265 mothers revealed that 45.5% of the bottle-feeding mothers in their study indicated that they had no friends who breast-fed while only 24.8% of the breast-feeding mothers reported that none of their friends were breast-feeding. In a study done by Salber, et al. (1959) almost one-third of their non-breast-feeding mothers indicated that the advice of their friends or relatives influenced their decision to bottle-feed.

Jeffs (1977) claims that the more exposure, through witnessing breast-feeding and/or having knowledge of friends or relatives who have breast-fed, a woman has before childbirth, the more likely she is to choose to and be successful with breast-feeding.

Eastham, Smith, Poole and Neligan (1976) report from their study of 200 mothers that embarrassment about breast-feeding is one of the most frequent reasons, given by mothers, as to why they do not want to breast-feed. Jeffs (1977) identified embarrassment about breast-feeding as one factor which strongly influenced the mothers' success with breast-feeding in her sample population. If the mother was embarrassed about breast-

feeding then it was less likely she would succeed compared to the mother who expressed little or no embarrassment.

Authorities state that approximately 95% of all women are physically able to breast-feed as a natural extension of their biological roles of pregnancy and childbirth (Newton, 1950; Jelliffe & Jelliffe, 1978; Peaker, 1976). However, research has established that the physical process of milk production and milk release during breast-feeding are heavily influenced by the psychological state of the mother (Gunther, 1976; Newton, 1950). This reflex milk ejection involves an afferent nervous impulse resulting in a discharge of oxytocin from the posterior pituitary gland. The reflex can easily be interrupted by an emotional upset, such as embarrassment, in the mother or quickly elicited by circumstances which usually precede feedings, such as a baby crying.

The sensitivity of the milk ejection reflex is peculiar to humans and is an example of the human psychosomatic process (Gunther, 1971). Thus, while 95% of all women are physically capable of breast-feeding, psychosomatic aspects of breast-feeding do not guarantee that all women who try to breast-feed will be successful.

Support Persons

The role of the father as a support person for the breast-feeding mother has only recently been recognized. Ewy and Ewy (1975) assert that a mother who is supported by the infant's father can almost always have a successful breast-feeding experience. Jeffs (1977) stated that the husband's attitude to breast-feeding strongly influences the method of feeding choice. Only 13% of Jeffs' sample chose a feeding method directly counter to their husband's preference. Kemberling (1979) claims that the attitude of the father is crucial to the mother's success with breast-feeding.

Guthrie and Guthrie (1966) and Robertson (1961) found that medical personnel play a minimal role in influencing breast-feeding. Only 23% of Guthrie's population indicated that a medical person had been influential in their feeding decision. Most mothers reported that physicians and nurses only involvement was to be supportive of the method they had chosen. Cole (1975) studied 140 post-partum mothers and found that only one-third of her population indicated that hospital nurses had supplied helpful information; however among this minority, 79% were still breast-feeding at three months post-partum. Kemberling (1979) reflects that most American health professionals are inadequately prepared in the skills of teaching breast-feeding. Meyer (1968) asserts that even though sex is freely discussed in contemporary society, to discuss breast-feeding is to embarrass, and to practice breast-feeding is to invite ridicule. As a result, most health professionals avoid the subject. The American Academy of Pediatrics (1978) state that:

Many women require encouragement to foster the "milk ejection reflex"; therefore, the personnel involved in the care of pregnant women and new mothers should be psychologically oriented toward breast-feeding and should be well informed about the preparation of the breast, lactation and the management of breast-feeding (pp. 598).

Kemberling (1979) emphasizes that frequent communication between parents and staff before and after delivery is essential to encourage the development of the skills needed for breast-feeding. Sloper, et al. (1975) and Jones and Belsey (1976) concluded from their studies that the establishment and maintenance of lactation depends more on the quality of antenatal supervision rather than on care during the puerperium. Ladas (1970) concurs with this finding and adds that it is preferable to support the decision to breast-feed before the birth of the baby rather than afterwards only. However, it is much better to have been supportive both before

and after the birth of the baby.

Cumulative Effect of Personal and Social Factors

Jeffs (1977) conducted a study in England on 130 post-partum mothers. The aim of her study was to examine the underlying reasons why women decide to breast or bottle feed. From her data she was able to identify six factors which were predictive of choice and success of breast-feeding. Though several of these factors have been discussed in the preceding literature, only Jeffs discusses the cumulative effects they have on breast-feeding. The factors she identified were, the mother: 1) was breast-fed as an infant; 2) had witnessed breast-feeding before childbirth; 3) had many friends and relatives who have breast-fed; 4) was married to a husband who preferred breast-feeding; 5) had breast-fed a previous baby; 6) was not squeamish or embarrassed about breast-feeding.

Jeffs devised a scoring system in which each factor was assigned a value of one point. From this descriptive data the majority of the group with the highest score, four or above, planned to breast-feed and succeeded. Half of the women with scores two or below decided to bottle-feed, while the remaining half decided to breast-feed, but of these, 44% failed. Those mothers with the low scores who succeeded with breast-feeding reported receiving a greater amount of support and information than those who failed. This investigator could find no similar studies conducted in the United States that had developed an instrument similar to Jeffs.

Conceptual Framework

Stimulated by Jeffs' (1977) report that certain personal and social

factors (mother having: been breast-fed as an infant, witnessed breast-feeding before childbirth, many friends or relatives who have breast-fed, a husband who prefers breast-feeding, breast-fed a previous baby, no feelings of embarrassment about breast-feeding) have a cumulative effect on the mother's ability to breast-feed, this researcher set out to determine if similar factors could be recognized in mothers living in Oregon. Review of the literature revealed that the factors which Jeffs identified as influential on a mother's breast-feeding experience were also reported as significant factors by other researchers. Three additional factors, doll play, rural vs suburban-urban area of up-bringing and femininity, which were discussed by several researchers as possibly having an effect on the outcome of breast-feeding were of interest. Therefore, this researcher chose to investigate the influence, doll play, area of mother's up-bringing, mother's femininity and all the factors identified by Jeffs except having breast-fed a previous baby, have on success of breast-feeding. The factor, having breast-fed a previous baby was excluded because of the criteria set down in the study that no multiparous mothers would be used.

CHAPTER II

METHODS

The purpose of this study was to examine the personal and social factors in a mother's background that might have an influence on her success with breast-feeding.

Design

The design of the study was correlational and explanatory. Correlational research provides the researcher with the relationship between a dependent variable and an independent or predictor variable. The explanatory study allows one to test the expected relationship between two or more variables in a predictive way. It allows for testing the hypothesis (Kerlinger, 1973).

Sample

A sample of convenience was drawn from a population of women attending "prepared childbirth" classes in the Portland metropolitan area. The investigator personally contacted each mother following the class session on infant feeding, and asked them to participate in the study. If the woman agreed to participate, the prenatal questionnaire and Spence's questionnaire were administered. Verbal instructions, as well as written instructions for completion of the questionnaires were given before they were administered. However, no specific reference to breast-feeding was made in either the consent form or in the personal introduction since the women were primiparous and may have been uncomfortable at the prospect of

having their breast-feeding experience examined.

Approximately two months following the expected date of delivery the investigator personally contacted the mothers who fit the criteria for sample selection. Arrangements were made to administer the post-natal questionnaire (Appendix D) at "prepared childbirth" class reunions or during scheduled home visits.

The following criteria were used in selection of the subjects. The mother had to:

1. be eighteen years of age or older, thus allowing the mother to participate without informed consent of her parents.
2. be expecting her first child, thus eliminating the effect multiparous mothers may have on the results (Brimlecombe & Cullen, 1977).
3. have a tenth grade education with English being her basic language, thus assuring the mother's ability to read and understand the questionnaires.
4. have attended the "prepared childbirth" class on infant feeding methods, thus providing for uniformity of the sample's exposure to this content during the "prepared childbirth" class.
5. be cohabitating with the father of the expected infant, thus eliminating lack of father's presence as emphasized by Kemberling (1979) to act as an intervening variable on breast-feeding outcome.
6. deliver between December, 1978 and February, 1979, thus allowing the data to be collected within the predetermined time period set down by the investigator.
7. be in good health, thus controlling for effect mother's health might have on her ability to breast-feed.
8. deliver a full-term infant, 38 to 41 weeks gestation, who was healthy and had no anomalies that would interfere with the ability to suck.

Instruments

Development of the Instruments

The data for this study was obtained through the use of self-administered questionnaires. Jeffs (1977) used the questionnaire as a tool for gathering information to identify the personal and social factors in a mother's background which had an influential effect on the success of breast-feeding. The questionnaire can be used as an exploratory device to help identify variables and relations. It provides for greater uniformity of stimulus and thus greater reliability than interviews and encourages honesty and frankness when self-administered (Kerlinger, 1973).

The literature revealed that the complex behavior of breast-feeding can be influenced by many personal and social factors in a mother's background. Thus, to obtain such information from the subject's background it appeared that multiple-choice type questions and Likert scale questions would be the most accurate measurements. Multiple-choice type items were used because they are easier to respond to and force the subject to answer questions in a way that fits the response categories previously set up by the investigator. This allows for greater uniformity of answers and thus greater reliability (Mehren and Lehman, 1973, pp. 280). Also they tend to facilitate a higher response rate since the questions appear simple and straightforward in format and are not too time consuming. Likert scale questions were used to allow the respondent to express her intensity of attitude (Kerlinger, 1973).

Description of the Instruments

A prenatal and postnatal questionnaire was used to gather the desired data. The prenatal questionnaire provided the investigator with

information concerning the mother's intent to breast-feed and certain personal and social factors in her background. The postnatal questionnaire allowed follow-up information to determine if the mother followed through with her intentions to breast-feed and the degree of success she experienced.

The prenatal questionnaire (Appendix B) consisted of 51 items which could be classified under three parts. Part one included 12 questions to determine if the subjects met the criteria for sample selection, and to obtain basic demographic information.

Part two consisted of 22 questions of a personal-social nature. These questions were concerned with obtaining information about: the amount of doll play the mother enjoyed as a child, the method by which the mother was fed as a child, mother's exposure to breast-feeding before childbirth, support the mother had from the baby's father about breast-feeding, area of mother's up-bringing and mother's feelings of embarrassment about breast-feeding. Research indicates that the above factors have an influential effect on the outcome of breast-feeding.

All other questions on the questionnaire functioned, in part, as detractors from the direct questions. They helped to "round out" the questionnaire from the point of view of the subject by making the content seem less focused on feeding method and related experiences.

The postnatal questionnaire (Appendix D) consisted of 36 questions which could be divided into three parts. Part one included 12 questions to determine if the subjects met the criteria set forth in the study as to date of delivery, maturity of infant and health of mother and infant.

Part two consisted of 11 questions directly concerned with breast-feeding. The primary intent of these questions were to ascertain if the

mother had breast-fed as intended, how she breast-fed and the success of her endeavors.

Since new mothers might feel threatened at having their breast-feeding experiences examined to the exclusion of other topics 13 questions were included to act as detractor questions. A second purpose served by these questions was to obtain additional information about the differences in the home environment of the successful breast-feeding mother versus the unsuccessful mother. It is conceivable that such information could eventually be used in future studies on success of breast-feeding.

Both the prenatal and postnatal questionnaire were read by two faculty members and three volunteer mothers who had recently experienced childbirth. This preliminary trial was undertaken to test the adequacy of instructions, comprehension of terminology and degree of response. Necessary modifications were incorporated into the questionnaires and their final format prepared.

The Personal Attributes Questionnaire, short version, (Appendix C) was selected to measure the masculine-feminine characteristics of the subjects in the study (Spence, Helmreich & Stapp, 1974).

The short version of the Personal Attributes Questionnaire can be used to measure masculinity-femininity. The subjects are asked to rate themselves on 16 bi-polar attributes which are presented on a five point scale. Each subject receives a masculinity score and a feminine score, which may vary from 0 to 32 (thirty-two representing the most masculine response and zero representing the most feminine).

Spence, et al. (1974) report a satisfactory internal reliability on the self scale, with Alpha Coefficients of .73 for men and .91 for women. A second analysis for internal consistency showed that within each sex,

items tended to correlate satisfactorily with the individual's "masculinity" or "femininity" as reflected in his or her overall score.

When testing for cross validation significant stereotypes were found for both sexes on all items while near significant differences ($p < .2$) between the mean self-ratings occurred for 36 items on the original long version of the Personal Attributes Questionnaire.

Method of Analysis

In accordance with the purpose of the study correlation and explanatory statistical procedures were used. Each hypothesis was accepted if the correlation obtained was significant at a 0.05 level.

To test the hypotheses crosstabulation analysis was computed to determine the joint frequency distribution and relationship of each independent factor by success of breast-feeding. Chi-square and Cramer's V and phi were the statistical test used to measure the significance and strength of the relationship.

In addition, a bivariate regression analysis was computed to determine what percent of the variation observed in success of breast-feeding could be explained by each factor. Multiple regression was also used to evaluate the contribution of the identified factors on success of breast-feeding.

Frequency distributions and percentages were computed on the demographic data.

CHAPTER III

RESULTS

Description of the Sample

Subjects for this study were selected from women attending "prepared childbirth" classes. Seventy-two expectant mothers were approached and asked to take part in the study. Of these 72 women, sixty-five (90.3%) agreed to participate. The response rate for the prenatal questionnaire was, 90.3%; however, only 49 of these met the criteria for inclusion in the study. Of the 65 mothers who answered the questionnaire 3 were planning to bottle-feed their infants, 6 were multiparous, 2 had suffered illnesses during pregnancy, and the delivery date of 5 mothers was beyond that set for closure of the data collection period. On the follow-up, postnatal questionnaire three of the 49 mothers were lost because of illness or changes of address resulting in a response rate of 93%.

The final sample included 46 caucasian, primiparous mothers between the ages of 18 and 32 years, with a mean age of 25.5 years. The educational level of the mothers ranged from 10 to 18 years, with a mean of 12.9 years. The largest majority of the sample, 84.8% were raised in the Northwest while 15.2% were raised in other sections of the United States. All the mothers resided with the father of their infant. Most of the mothers, 89.2% worked either full or part time during their pregnancy and 26% reported they planned to return to work within three months after delivery. However, only 10.8% had returned to work, part time, at two months post-partum.

Basic Finding on Breast-feeding Outcome

Sixteen (34.8%) of the mothers reported they had breast-fed their infants for various periods from birth to six weeks while thirty (65.7%) reported they were still breast-feeding at eight weeks of age. These numbers changed to 30 and 70 percent respectively when mothers who delivered by Caesarean section were excluded. How these mothers breast-fed and when they terminated is shown in Table 1. Thirty-six (81.8%) of the mothers "token" breast-fed, that is, nineteen (43.2%) breast-fed with frequent use of a supplemental bottle and seventeen (38.6%) breast-fed with occasional use of a supplemental bottle. Eight (18.2%) mothers breast-fed totally.

Findings Regarding the Independent Variables

This study endeavored to examine a variety of factors associated with success in the complex behavior of breast-feeding. It sought to determine certain personal and social factors in a woman's background that might affect her breast-feeding experience. What follows is a report on the results of the statistical tests conducted to examine the relationship doll play, not feeling embarrassed about breast-feeding, father's support of feeding choice, exposure to breast-feeding before childbirth, being raised in a rural area and femininity have on the outcome of breast-feeding.

Feminine Personality Stereotype on Success of Breast-feeding

The femininity-masculinity scores derived from Spence's short version of the Personal Attributes Questionnaire could, in principle, range from 0 to 32, with the lower values signifying greater femininity and higher values denoting greater masculinity. The study's population scores on

femininity ranged from 1 to 14, with a mean score of 7.2. The distribution was highly skewed toward high femininity. The masculinity scores were highly skewed toward low masculinity.

The first hypothesis tested was: Women who strongly identify with the traditional feminine personality stereotype, as measured by Spence's Personal Attribute Questionnaire, will be more successful with breast-feeding than women who weakly identify with the traditional feminine personality stereotype.

To examine this hypothesis a crosstabulation analysis on femininity by successful breast-feeding was computed. It revealed that thirty-one (67.4%) of the mothers scored high on femininity, of these nineteen (61.3%) were successful with breast-feeding and twelve (38.8%) were unsuccessful. Fifteen (32.3%) scored low on femininity, twelve (80%) of these mothers were successful and three (20%) were unsuccessful in their breast-feeding experience. A correlation between femininity and success with breast-feeding revealed a phi of .187 which was not statistically significant. In addition a bivariate regression analysis was computed on femininity with success of breast-feeding and described the relationship to be in an insignificant, negative direction with only three percent of the variation in success of breast-feeding being explained by the factor, femininity ($r^2 = .035$; $p < .1$).

When the masculine scores were crosstabulated by success of breast-feeding, it was found that forty-one (89.9%) scored low on masculinity and of these twenty-eight (68.3%) were successful with breast-feeding and thirteen (31.7%) were unsuccessful. Five (10.9%) of the mothers scored high on masculinity, three (60.0%) were successful and two (40%) were unsuccessful with breast-feeding. Bivariate regression revealed that a very

TABLE 1

Crosstabulation of When the Mother Terminated Breast-feeding
by
How the Mother Breast-fed

How the Mother Breast-fed	WEEKS MOTHER BREAST-FED							Total
	1	2	3	4	5	6	beyond 8	
(count)	0	0	1	0	1	0	6	8
Totally (% who totally breast-fed) (% of total population)	0.0	0.0	12.5	0.0	12.5	0.0	75.0	18.2
(count)	1	1	1	0	0	1	13	17
Occasional Bottle (% who used occasional bottle) (% of total population)	5.9	5.9	5.9	0.0	0.0	5.9	76.5	38.6
(count)	1	0	4	1	1	2	10	19
Frequent Bottle (% who used a frequent bottle) (% of total population)	2.3	2.3	2.3	2.3	2.3	2.3	29.5	43.2
(Total from Population)	2 (4.5%)	1 (2.3%)	6 (13.6%)	1 (2.3%)	2 (4.5%)	3 (6.8%)	29 (65.7%)	

weak, insignificant, negative relationship existed between masculinity and success with breast-feeding ($r = -.055$). No variance in the samples breast-feeding outcome could be attributed to masculine characteristics.

The first hypothesis was not supported by the results derived from the analysis of data gathered in this study.

The Influence of Factors on Success of Breast-feeding

The second hypothesis tested was: Women who score high on a number of examined factors (frequency and years of doll play enjoyed by the mother as a child, mother's exposure to breast-feeding before childbirth, mother having support from the baby's father about breast-feeding, mother having grown up in a rural area, mother not feeling embarrassed about breast-feeding, and mother having been breast-fed as an infant) will be more successful with breast-feeding than mothers who score low on these factors.

To examine this hypothesis crosstabulation analysis was conducted on each factor by success of breast-feeding to determine their relationship. Bivariate and multiple regression analysis was also used to explore the factors relationship with success of breast-feeding.

Exposure to Breast-feeding

Two factors, witnessing breast-feeding before childbirth and number of friends or relatives having breast-fed, were examined individually for their influence on success of breast-feeding and examined together for their cumulative effect on success of breast-feeding.

Table 2 reveals that ten (58.8%) of the 17 mothers who reported having seldom (2 or 3 times) witnessed women breast-feeding were successful with breast-feeding themselves. Twenty-eight (60.9%) mothers reported having often (more than 4 times) seen mothers breast-feeding, twenty (71.4%) of

TABLE 2

Crosstabulation of Witnessing Breast-feeding
by
Success of Breast-feeding

Witnessing Breast-feeding	Success of Breast-feeding	
	continued	terminated
never	1 (100%)	0 (0%)
seldom	10 (58.8%)	7 (41.7%)
often	20 (71.4%)	8 (28.6%)

Cramer's V = 0.165
p < .532

these mothers were still breast-feeding at the end of the eight week period. A test for correlation indicated that a weak positive relationship existed between witnessing breast-feeding before childbirth and success with breast-feeding but was not statistically significant (Cramer's $V = .165$; $p < .5$). Bivariate regression analysis revealed that six percent of the variation in success of breast-feeding can be explained by mothers having witnessed breast-feeding before childbirth but at a level not statistically significant ($r^2 = .067$; $p < .5$).

Twenty-one (45%) of the mothers reported having several (3 or 4) friends or relatives who had breast-fed an infant while eight (17.4%) reported having many (more than 4). When this data was crosstabulated by outcome of breast-feeding thirteen of the 21 mothers who reported having several friends or relatives who had breast-fed were successful with breast-feeding. None of the eight mothers who reported having many friends or relatives who breast-fed were unsuccessful. Findings displayed in Table 3 suggest that a relationship exists between having friends or relatives who have breast-fed and success with breast-feeding. A test for correlation supports this view but with no statistical significance (Cramer's $V = .447$; $p < .5$). Five percent of the variation seen in the sample's breast-feeding outcome can be explained by this factor; however, this finding was not statistically significant ($r^2 = .053$; $p < .5$).

To examine the cumulative effect of witnessing breast-feeding and having friends and relatives who had breast-fed on success of breast-feeding the researcher devised a new item called "mother's exposure to breast-feeding" before childbirth. The responses from the questions dealing with witnessing breast-feeding and number of friends or relatives who had breast-fed were assigned values. Never witnessing breast-feeding was given a zero,

TABLE 3

Crosstabulation of Number
of Friends and Relatives Who Breast-fed
by
Success of Breast-feeding

Number of Friends or Relatives	Success of Breast-feeding	
	continued	terminated
none	1 (100%)	0 (0.0%)
few	9 (56.3%)	7 (48.8%)
several	13 (61.9%)	8 (38.1%)
many	8 (100%)	0 (0.0%)

Cramer's V = 0.347
p < .135

seldom was assigned a one, and often witnessing breast-feeding was valued as a two. On the question about number of friends or relatives, having no friends or relatives received a zero, having a few was assigned a one, having several received a two and many received a three. The values from the two questions were added together with a new value being given as the response to the factor of mother's exposure to breast-feeding before childbirth. The values ranged from 2 to 5, the higher the value the greater the amount of exposure the mother had had to breast-feeding before childbirth.

Table 4 presents the results obtained from crosstabulation analysis of mother's exposure to breast-feeding by success of breast-feeding. Twenty-two (47.8%) of the mothers had values of 4 or above. Of these mothers only five (22%) were unsuccessful with breast-feeding. Twenty-four mothers had values of less than 4 with ten (41.7%) of these mothers failing to succeed with breast-feeding. To examine the relationship of mother's exposure to breast-feeding before childbirth with success of breast-feeding a correlation test was computed. The test yielded a Cramer's V of .326 which was not significant. A bivariate regression revealed that nine percent of the variation in success of breast-feeding could be explained by mother's exposure to breast-feeding before childbirth, however this was without significance ($r^2 = .090$; $p < .1$).

Method by Which the Mother was Fed as an Infant

Twenty-three (50%) of the mothers from the sample were bottle fed as infants, seventeen (37%) were breast-fed and six did not know how they were fed as infants. Of the 28 mothers who successfully breast-fed their infants 15 (53.5%) were bottle-fed and 13 (46.4%) were breast-fed as infants. When a bivariate regression analysis was computed on the method

TABLE 4

Crosstabulation of Success of Breast-feeding
by
Mother's Exposure to Breast-feeding

Success of Breast-feeding	Total Scores on Mothers' Exposure				
	2	3	4	5	6
Continued Breast-feeding	3 (9.7%)	11 (35.5%)	11 (35.5%)	6 (19.4%)	0 (0.0%)
Terminated Breast-feeding	4 (26.7%)	6 (40.0%)	5 (33.3%)	0 (0.0%)	0 (0.0%)

Cramer's $V = .326$
 $p < .180$

by which a mother had been fed with success of breast-feeding an insignificant relationship was found ($r = -.167$; $p > .1$). Three percent of the sample's variation with success of breast-feeding could be explained by the method by which the mother was fed as an infant but this finding was not statistically significant ($r^2 = .028$; $p > .1$).

Area of Up-bringing

A crosstabulation of where the mothers were raised as children revealed that twenty (43.4%) were raised in the city, seventeen (37%) grew up in the suburbs and nine (19%) were raised in rural areas. Twelve (60%) of the city mothers, twelve (70.6%) of the suburban mothers and six (66.7%) of the mothers raised in rural areas were successful with breast-feeding. A Chi-square test revealed that there was no significant difference in success of breast-feeding between mothers raised in the city, the suburbs or in rural areas ($\chi^2 = 0.464$; $p > .8$).

Doll Play

The biggest majority of mothers (73.8%) reported playing with dolls often (more than twice a week) as a child. The other 26% reported they seldom (one or two times a week) played with dolls as a child. The age at which the mothers stopped playing with dolls ranged from 6 to 14 years with a mean age being 10.3 years. Twenty (61.8%) of the thirty mothers who often played with dolls were successful with breast-feeding. Ten (83.3%) of the twelve mothers who seldom played with dolls had a successful breast-feeding experience. A very slight negative relationship was found to exist between doll play and successful breast-feeding but this was so minimal that no significance could be attributed to it ($\phi = -.202$; $p > .4$).

Father's Support of Feeding Choice

The question about the father's support of feeding choice revealed that thirty (75%) of the father's strongly supported the mother's decision to breast-feed, five (12.5%) somewhat supported the mother's decision and four (10%) did not mind whether the mother breast or bottle fed. Only one mother reported she had not discussed the choice of feeding method with the father. When this data was crosstabulated with success of breast-feeding no significant relationship was found.

Embarrassment About Breast-feeding

Prenatally thirty-one (67.4%) of the mothers reported they did not feel at all or only slightly embarrassed about breast-feeding. Thirteen (28.3%) were unsure of their feelings and two (4.3%) reported feeling very embarrassed about breast-feeding. Eleven (73.4%) of the 13 mothers who felt unsure or very embarrassed about breast-feeding were unsuccessful in their endeavors. Of these 11 mothers, eight (72.7%) had stopped breast-feeding by three weeks. Analysis of this data revealed that a positive relationship exists between embarrassment about breast-feeding and success with breast-feeding (Cramer's $V=0.617$; $p < .001$). This data is displayed in Table 5. Bivariate regression analysis indicates that 28% of the variation in the sample's breast-feeding experience can be explained by feelings of embarrassment ($r^2 = 0.285$; $p < .001$).

Postnatally thirty-two (69.5%) of the mothers reported they had difficulty finding privacy while breast-feeding. Twelve (26.1%) indicated it was sometimes (once or twice a week) a problem and only two (4.3%) reported it was a definite problem. Six (40%) of the 15 mothers who were unsuccessful with breast-feeding and eight (25.8%) of the 31 mothers who

TABLE 5

Crosstabulation of Mother's Feeling of Embarrassment
by
Success of Breast-feeding

Feelings of Embarrassment	Success of Breast-feeding	
	continued	terminated
none	17 (89.5%)	2 (10.5%)
slightly	10 (83.3%)	2 (16.7%)
unsure	3 (23.1%)	10 (76.9%)
very	1 (50.0%)	1 (50.0%)

Cramer's V = .616
p < .001

were successful with breast-feeding reported privacy was a problem while breast-feeding. Therefore, it appears that the more problems related to privacy a mother experiences, the less likely she is to be successful. However, when this relationship was tested for strength it was found to be weak and insignificant (Cramer's $V = .098$; $p < .1$).

Results on the Multiple Regression Analysis

Because of the sample size it was necessary to eliminate the factors that had no influence on the final outcome of breast-feeding before an accurate multiple regression could be computed. A simple bivariate regression analysis was employed to assess the relative strength of the effects each variable (the frequency and years of doll play enjoyed by the mother as a child, mother's exposure to breast-feeding before childbirth, support the mother had from the baby's father, area of mother's upbringing, mother's feelings of embarrassment about breast-feeding, method by which the mother was fed as an infant and mother's femininity) had on the outcome of breast-feeding. Table 6 presents the results from each bivariate analysis. From the test results it can be seen that mother's exposure, method by which the mother was fed, feelings of embarrassment about breast-feeding and femininity were all reported as having a possible influence on the success of breast-feeding. Doll play, father's support and where the mother was raised had no effect on the people's attempts to breast-feed; therefore, these factors were not included in the multiple regression analysis.

A multiple regression analysis revealed that the selected factors were not strong predictors of the variance observed in the mother's breast-feeding experience ($R = 0.599$; cumulative variance explained 35%, $p < 0.1$). Table 7 reveals that the mother's feelings of embarrassment about breast-

TABLE 6

Simple Bivariate Regression of Factors
with
Outcome of Breast-feeding

Factor	Simple R	Cumulative Variance	Beta Coefficient
Mother's Feelings of Embarrassment	0.530	0.281*	0.530
Mother's Exposure to Breast-feeding	0.310	0.090	0.301
Femininity	-0.187	0.035	- .187
Method by Which the Mother was Fed as an Infant	-0.167	0.028	-0.167
Doll Play	-0.034	0.008	-0.034
Masculinity	-0.055	0.003	-0.055
Father's Support of Feeding Choice	0.025	.000	0.025

* $p < .001$

TABLE 7

Multiple Regression Analysis of Factors
with
Outcome of Breast-feeding

Factor	Multiple R	Cumulative Variance R ²	R ² Change	Beta Coefficient
Method by Which the Mother was Fed	0.167	0.027	0.027	-0.104
Mother's Feelings of Embarrassment	0.538	0.290*	0.262	0.462
Femininity	0.563	0.317	0.027	-0.171
Mother's Exposure to Breast-feeding	.599	0.359	0.041	0.213

*p < .01

feeding had the greatest influence on the outcome, accounting for 29% of the variation found. Mother's exposure to breast-feeding had the second greatest effect with femininity following. The method by which the mother was fed as an infant had the least influence on success of breast-feeding. Of these factors only feeling embarrassed about breast-feeding had a significant influential effect on the mother's breast-feeding experience ($p < .05$). However, the test results on the other three factors (method by which the mother was fed, exposure to breast-feeding and femininity) yielded trends in the direction of a relationship with success of breast-feeding.

Cumulative Effect of Factors

Before the cumulative effect of the influential factors (method by which the mother was fed, feeling embarrassed about breast-feeding, mother's exposure to breast-feeding before childbirth and femininity) could be analyzed a score system had to be devised. The scoring system is presented in Table 8. It reveals that on the variable, method by which the mother was fed, those mothers who were breast-fed received no points, bottle-fed mothers received one point. On the embarrassment variable mothers who reported no or only slight embarrassment were given one point and those mothers who reported being unsure or very embarrassed received no points. The mothers with the scores of 0 to 8 on Spence's Personal Attributes Questionnaire were considered high feminine and given no points, those with scores higher were given one point. The variable measuring mother's exposure to breast-feeding was divided into two parts, how much the mother had witnessed breast-feeding before childbirth and the number of friends or relatives who had breast-fed. No points were given those mothers who seldom witnessed breast-feeding and one point was given those who often

TABLE 8

Scoring Key for Influential Factors

FACTOR	VALUE	
Method by Which the Mother was Fed as an Infant	Breast	0
	Bottle	1
Mother's Feelings of Embarrassment	Not Embarrassed	1
	or Slightly Embarrassed	
	Embarrassed or Unsure	0
Femininity (derived	Score 0 to 8	0
Spence's Personal Attributes Quest.)	Score 9 to 16	1
Mother's Exposure to Breast-feeding		
1. Witnessing Breast-feeding	Seldom	0
	Often	1
2. Number of Friends or Relatives Who Breast-fed.	None or Few	0
	Several or Many	1

witnessed breast-feeding. The mothers who reported no or few friends or relatives who had breast-fed received no points and those mothers with several or many friends who breast-fed were given one point. The points on the variables were summed with five points being the highest possible score. The higher the score the more favorable the mother's background was for breast-feeding.

Table 9 presents the contingency table computed on the relationship between the cumulated effects of the factors by the outcome of breast-feeding. Twenty-eight of the mothers received high scores (3 to 5) on the factors, twenty-three (82.1%) of these were successful with breast-feeding. Eighteen mothers scored low (0 to 2) with eight (44.4%) of these mothers reporting a successful breast-feeding experience. Analysis of the data revealed a weak relationship existed between a high score on the factors and success with breast-feeding ($\phi = .392$; $p < .01$).

The second hypothesis was not supported from the results on the analysis of data computed for this study.

Other Findings

From the information gathered from question 36 of the postnatal questionnaire a crosstabulation analysis was computed. The crosstabulation on the amount of father's assistance during the breast-feeding process by time, in weeks, when the mother stopped breast-feeding revealed that eight (53.3%) of the 15 mothers who were unsuccessful with breast-feeding quit by 3 weeks post-partum. Of these 8 mothers six (75%) reported they had received little or no help from the father during the breast-feeding process. The 7 mothers who were not successful but terminated breast-feeding after three weeks but before eight weeks reported they received as much or more help from the fathers than the mothers who were successful

TABLE 9

Crosstabulation of Scores on Influential Factors
by
Outcome of Breast-feeding

		Success with Breast-feeding		
		continued	terminated	
High Scores	count	23	5	28
	% of high score population	82.1	17.8	
	% of total population	50	10.8	60.8
Low Scores	count	8	10	18
	% of low score population	44.4	55.5	
	% of total population	17.3	21.7	38.8

phi = .392; $p < .01$

with breast-feeding. Also of interest is the type of help the fathers gave the mothers during the breast-feeding process. Thirty-two (78.3%) of the 46 mothers reported the father assisted them by offering physical help (bringing them something to drink, helping them find a comfortable position or getting up at night to get the baby) while only thirteen (28.3%) reported the father offered psychological support (encouraging them about their ability to breast-feed, protecting them from stressful situation and people while breast-feeding or encouraging them to rest).

CHAPTER IV

DISCUSSION

The purpose of this study was to examine the effect of the following factors on success of breast-feeding: method by which the mother was fed as an infant, the amount of doll play enjoyed by the mother as a child, mother's exposure to breast-feeding before childbirth, support the mother had from the baby's father about the feeding method, area of mother's upbringing, mother's feelings of embarrassment about breast-feeding and mother's femininity. The following two hypotheses were tested:

1. Women who strongly identify with the traditional feminine personality stereotype, as measured by Spence's Personal Attributes Questionnaire, will be more successful with breast-feeding than women who weakly identify with the traditional feminine personality stereotype.

2. Women who score high on a number of the examined factors (frequency and years of doll play enjoyed by the mother as a child, mother's exposure to breast-feeding before childbirth, mother having support from the baby's father about breast-feeding, mother having grown up in a rural area, mother not feeling embarrassed about breast-feeding and mother having been breast-fed as an infant) will be more successful with breast-feeding than mothers who score low on these factors.

Major Findings

Analysis of the data on the relationship of femininity, as defined by Spence's Personal Attributes Questionnaire, did not support the first hypothesis. The crosstabulations suggested a trend in the reverse direction of the hypothesis, that is, women who strongly identified with the

traditional feminine personality stereotype were more often unsuccessful with breast-feeding than mothers who weakly identified with the feminine personality stereotype. This finding does not support the contention of Adam (1959) and Newton (1971) that women who possess more feminine qualities will elect to breast-feed and be successful with their endeavors. The length of time which has elapsed since the data were collected for the above studies may explain these conflicting results. Therefore, further research on the influence femininity has on success of breast-feeding is indicated before a definite positive or negative relationship can be established.

Analysis of the data on the cumulative effect personal and social factors have on breast-feeding outcome did not support the second hypothesis. However, crosstabulations on four factors, method by which the mother was fed as an infant, mother's exposure to breast-feeding, femininity, as measured by Spence's Personal Attributes Questionnaire, and feelings of embarrassment about breast-feeding, suggested trends in the direction of the hypothesis. Therefore, further investigation of the hypothesis is necessary before conclusions can be drawn.

One factor, the mother's feelings of embarrassment about breast-feeding, was found to have significant influence on the outcome of breast-feeding. This finding supports Jeffs (1977) and Eastham, et al. (1976) studies. However, no other studies were found which discussed the important role embarrassment about breast-feeding plays on outcome. Thus, it seems apparent from this study that embarrassment plays a more significant role in breast-feeding than is documented in the literature. If the mother suffers a high degree of embarrassment about breast-feeding then a stressful situation results and it follows that the "let-down" reflex will be inhibited because

of the psychosomatic nature identified by Gunther (1971) and Cole (1975).

Other Findings of General Interest

Newton (1971) and Jelliffe and Jelliffe (1978) report that "token" breast-feeding is the trend in contemporary societies and that most mothers following this practice are unsuccessful with breast-feeding. Of the thirty mothers in this study, who continued to breast-feed beyond the eight week period, only six (20%) reported breast-feeding totally while twenty-three (80%) reported "token" breast-feeding. Therefore, these findings support the trend of "token" breast-feeding but do not support the contention that "token" breast-feeding leads to an unsuccessful experience. The success with "token" breast-feeding reported in this study may be the result of society's changing views of women's roles and rights. Today women are freer to elect whatever feeding method is "right" for their situation, not what is dictated to them by health professionals. "Token" breast-feeding also meets the needs of the father, that is, it provides him with the opportunity to take part in all the responsibilities of infant care. The results seem to suggest that health professionals and health educators may safely support parents decision to "token" breast-feed as well as inform parents of this method as an alternative to total breast or total bottle feeding.

When the data concerned with the father's assistance with the breast-feeding process were examined by when the mother terminated breast-feeding it revealed that those mothers who reported receiving little or no assistance terminated breast-feeding by three weeks. The mothers who continued beyond three weeks but less than eight weeks reported receiving as much or more help than mothers who continued beyond eight weeks. Therefore, it appears there may be a critical time for the father's support and assistance

in relation to influencing the mother's ability to breast-feed.

Conclusions

This study attempted to add to the knowledge base about what personal and social factors might be influential on a mother in relation to her breast-feeding experience. Although the hypotheses of this study were not supported by the statistical test, crosstabulation identified four factors, embarrassment about breast-feeding, method by which the mother was fed as an infant, mother's exposure to breast-feeding before childbirth and femininity, which tended to have an influence on the outcome of breast-feeding. It is hoped that an awareness of these factors will stimulate other researchers to investigate the effects these and other factors have on a larger sample of breast-feeding mothers. Although more basic research is essential, this information should be useful to health professionals in helping them to identify the population at risk of being unsuccessful with breast-feeding and to institute appropriate intervention.

Limitations

The results of this study are limited by the size of the sample and the fact that all mothers were voluntarily enrolled in "prepared childbirth" classes thus imposing a self-selection factor not found in the general population. Also the instruments used limited the results of the study.

The instruments had three prominent limitations: 1) clarity of the items and instructions; 2) the responses of the respondents were limited to items on the questionnaire; and 3) the reliability and validity of the two questionnaires designed by the researcher is unknown.

Implications for Future Studies

1. Another approach to examining the effects personal and social factors have on success of breast-feeding would be to select a larger, more general maternal population, not only including mothers who had attended "prepared childbirth" classes.

2. Further development and refinement of the questionnaire is needed with the establishment of reliability and validity.

3. This study's significant finding of the role embarrassment plays on the outcome of breast-feeding suggest further study. An investigation should be undertaken using more precise tools to measure embarrassment and it's relationship on the success of breast-feeding.

4. A future study directed toward analyzing how the father perceives his role in breast-feeding is suggested by the results of this study's finding of the effect the father's assistance had on the mother's breast-feeding performance.

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APPENDICES

APPENDIX A
Consent Form for Human Research

Code Number: _____

INFORMED CONSENT FORM

I, _____, hereby agree to
(First Name) (Middle Name) (Last Name)
participate as a subject in the investigation named, "Effects of Personal and Social Experiences of Mothers Preparing for Elements of Newborn Care" by Janie Griffin, R.N., under the supervision of Wilma Peterson, Ph.D.

The investigation aims at exploring the influences that past experiences have on preparation for infant care and nutrition by the expectant mother.

The procedure to which I will be subjected will be to answer three questionnaires, two before delivery and one approximately two months after delivery of my baby. In the first questionnaire I understand I will be asked about my background, my decisions about certain aspects of infant care and nutrition, and about persons and activities involved in making my decisions. The second questionnaire will be about personal attributes. The total time required of me to complete both questionnaires will be about one-half hour. The third questionnaire will relate to aspects of infant care and will require about fifteen minutes time to complete.

My participation in this study will help provide nurses with information that will help them to better understand factors that play a part in a mother's decisions about care and nutrition of her newborn.

It is my understanding that the information obtained will be kept confidential. My name, address and phone number are necessary only for Janie Griffin to contact me for the second questionnaire. My name will

not appear in the report and anonymity will be insured by the use of code numbers. I agree that the information I give in participating in this investigation may be used in reporting the investigation results and for other research and educational purposes.

Janie Griffin has offered to answer any questions that I might have about my participating in this study. I understand I am free to refuse to participate in or withdraw from participating in this study at any time without effect on my relationship with the instructor of my Lamaze Prepared Childbirth class.

I have read the foregoing statements.

(Date)

(Signature)

(Witness's Signature)

APPENDIX B
Prenatal Questionnaire

PRENATAL QUESTIONNAIRE

1. When is your baby due? Month: _____ Date: _____
2. Name: _____
3. Address: _____
4. Phone Number: _____
5. Age: _____
6. Expectant Mother's education --- highest level completed:

Grade School	--	1	2	3	4	5	6	7	8	
High School	--	1	2	3	4					
College	--	1	2	3	4					Degree: _____
Vocational School	--	type:		_____						
Postgraduate	--	1	2	3						
7. Expectant Mother's occupation: _____
8. Expectant Father's education --- highest level completed:

Grade School	--	1	2	3	4	5	6	7	8	
High School	--	1	2	3	4					
College	--	1	2	3	4					Degree: _____
Vocational School	--	type:		_____						
Postgraduate	--	1	2	3						
9. Expectant Father's occupation: _____

NOTE: Please answer the following questions (10-16) by placing an "X" in the appropriate column.

- | | <u>Yes</u> | <u>No</u> |
|---|------------|-----------|
| 10. This is my first full-term pregnancy. | _____ | _____ |
| 11. I have been physically healthy during my pregnancy. | _____ | _____ |
| 12. English is my basic language. | _____ | _____ |
| 13. I was not bothered by severe mood swings prior to my pregnancy. | _____ | _____ |

- | | <u>Yes</u> | <u>No</u> |
|---|------------|-----------|
| 14. I live with the father of the expectant baby. | ___ | ___ |
| 15. I planned this pregnancy. | ___ | ___ |
| 16. I plan to deliver in a hospital. | ___ | ___ |
17. I live in the:
- ___ city
___ suburbs
___ rural area
18. How happy are you to be pregnant at this time?
- | | | | | |
|---|---|---|---|--|
| Very happy to be
pregnant at this time | | | | Would rather not be pregnant
at this time |
| 1 | 2 | 3 | 4 | 5 |
-
19. Did you work during this pregnancy?
- ___ Yes
- | | |
|--|--|
| Full-time
___ during first trimester
___ during second trimester
___ until 8 months pregnant
___ still working | Part-time
___ during first trimester
___ during second trimester
___ until 8 months pregnant
___ still working |
|--|--|
- ___ No
20. When do you expect to return to work?
- ___ within one month after delivery
 ___ within three months after delivery
 ___ within one year after delivery
 ___ I don't plan to return to work in the near future
21. As a child did you play with dolls?
- ___ never
 ___ seldom (once or twice a week)
 ___ often (more than twice a week)

22. If you played with dolls seldom or often at what age did you stop?

6 years 9 years 12 years
 7 years 10 years 13 years
 8 years 11 years 14 years or over

23. As a child did you live in the:

city
 suburbs
 country

24. Have you had experience caring for a small child?

none
 some
 a lot

25. How many brothers or sisters do you have in your family?

none
 # brothers
 # sisters

26. In relationship to your brothers and sisters what position are you?

eldest
 middle
 youngest

27. Have you witnessed women breast-feeding?

never
 seldom (2 or 3 times)
 often (more than three times)

28. If "yes" to number 27, where have you seen mothers breast-feeding?
(Please check all that apply)

in a private home
 in a private home among friends
 in public gathering areas (stores, theaters, churches, etc.)
 in public restrooms
 others: _____

29. Have you witnessed animals nursing their young?

never
 seldom (1 or 2 times)
 often (more than 2 times)

30. Do you feel a breast-feeding mother should breast-feed in the presence of:

- no one
 the baby's father only
 only close female friends and relatives
 only close female relatives
 any female present at the time the baby needs to be fed
 only those females over 15 years
 only close female and male relatives
 only close female and male friends and relatives
 anyone except young men under 18 years
 anyone regardless of age, sex or relationship
 other _____

31. Where do you feel a breast-feeding mother should breast-feed? (Please check all you agree with)

- in the privacy of her own home only
 in the privacy of close relatives or friends homes
 in public restroom when away from home
 in any public gathering place

32. Will the father of the baby be present in the delivery room?

- yes, probably unsure no

33. Will the father of the baby be present in the labor room?

- yes, probably unsure no

34. How were you fed as an infant?

- bottle fed
 breast fed
 don't know

35. If you were breast fed as an infant, for how long a time?

- | | |
|--|---|
| <input type="checkbox"/> less than one month | <input type="checkbox"/> 4 months |
| <input type="checkbox"/> 1 month | <input type="checkbox"/> 5 months |
| <input type="checkbox"/> 2 months | <input type="checkbox"/> 6 months |
| <input type="checkbox"/> 3 months | <input type="checkbox"/> more than six months |
| | <input type="checkbox"/> don't know |

36. What feeding method do you plan to use?

- bottle
 breast
 undecided

37. When did you make your decision on the method of feeding you plan to use?

- before pregnancy
 by 3 months pregnant
 by 6 months pregnant
 during the last 2 months of pregnancy
 following the class on infant feedings
 not yet decided

38. What feeding method does the baby's father prefer?

- bottle doesn't care
 breast have not discussed it with him

39. Does the baby's father support your choice of feeding method?

- very much somewhat opposed
 somewhat strongly opposed
 neutral not applicable

40. Have your friends or relatives breast-fed?

- Yes
 few (1 or 2)
 several (3 or 4)
 many
 No

41. Have you done reading about:

- bottle feeding
 breast feeding
 both bottle and breast feeding
 no reading about the different feeding methods

42. If you have done some reading have you read?

- Preparation for Breast-feeding
 The Womenly Art of Breast-feeding
 The Experience of Childbirth
 The Complete Book of Breast-feeding
 Brochures from the doctor's office on feedings
 Articles in women's magazines
 Other _____

43. Has your doctor or nurse discussed the different methods of feeding your infant?
- Yes
- just asked me about my choice
 gave me some information, briefly
 went into detail, answering my questions
- No
44. Does your doctor or nurse support your decision?
- very much
 somewhat
 neutral
- somewhat opposed
 strongly opposed
 has not discussed it
45. After the baby is born: (please check one)
- I prefer to have the baby cared for in the nursery and come out for feedings
 I am planning to have rooming-in (baby in room most of day)
 My hospital does not allow rooming-in
46. During the first two weeks at home with the baby, will you use:
- a diaper service
 use your own cloth diapers
 use primarily disposable diapers
47. Some mothers arrange for household help when they first come home from the hospital, while other mothers prefer to have more privacy or cannot arrange the help they would like. When you come home with the baby, do you plan to:
- have the baby's father take time off from work
 have your mother or mother-in-law help
 have a close friend or relative help
 have a paid babysitter
 have a paid housekeeper
 care for the baby and household duties on your own by preference
 would prefer to arrange for help but circumstances make it difficult to do so
 other _____

48. Do you feel any one particular person or thing has greatly influenced your decision about the method of feeding you have chosen? (please check one)

<input type="checkbox"/> baby's father	<input type="checkbox"/> readings
<input type="checkbox"/> mother	<input type="checkbox"/> media (TV, radio, etc.)
<input type="checkbox"/> mother-in-law	<input type="checkbox"/> friends
<input type="checkbox"/> doctor	<input type="checkbox"/> other _____
<input type="checkbox"/> nurse	<input type="checkbox"/> no one in particular

49. In what part of the country were you raised as a child?
(Please give the state or states you have lived in most of your life)

50. Some women, whether they plan to breast-feed or not, feel uneasy about doing so. Do you feel you would be embarrassed or squeamish about breast-feeding?

Very much					Not at all
<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	

NOTE: If you plan to bottle-feed please answer item number 51.
If you plan to breast-feed please answer number 52.

51. Women decide to bottle feed for many different reasons, below are some common reasons. Please check the three main reasons for you. (please indicate the most important as #1, then #2, and #3)

bottle feeding allows a woman to return to her prepregnant figure sooner

bottle milk is just as nutritious as breast milk

bottle feeding allows me to measure how much my baby is taking in with each feeding

bottle feeding is more convenient

bottle feeding allows me more freedom

most of my friends bottle feed

my breasts are too small

baby's father wants me to bottle feed

my doctor suggests it for medical reasons

baby has to work less hard to get his milk

baby's father can help feed the baby

breast-feeding is painful

breast-feeding is messy

I feel embarrassed about breast-feeding

bottle feeding allows me to return to work

51. Continued

bottle feeding allows me to take the birth control pill
 other: _____

52. Women decide to breast-feed for many different reasons. Below are some common reasons. Please check the 3 main reasons for you. (please indicate the most important reason as #1, then #2, and #3)

breast milk is the best milk for my baby
 a nursing mother feels more motherly
 it is my duty as a mother
 breast milk will keep my baby more healthy
 nursing helps baby feel secure
 most of my friends breast-feed
 baby's father wants me to breast-feed
 traveling is more convenient
 I was curious about breast-feeding and wanted to try it
 breast milk will help my baby gain weight faster
 my doctor recommends it
 breast-feeding is the natural way
 breast-feeding provides me a natural means of birth control
 other: _____
 nursing decreases the chances of breast cancer

Thank you very much for answering my questionnaire. If you would like a summary of the survey I will be happy to mail you the results when I have completed my study.

Please check here if you would like a summary _____.

APPENDIX C

Personal Attributes Questionnaire and Scoring Key
(Spence et al., 1974)

PERSONAL ATTRIBUTES QUESTIONNAIRE

The following are a series of five-point scales which describe a variety of psychological characteristics. For each one, you are to rate yourself on that characteristic. For example, how artistic are you? Not at all? Not very? Average? Somewhat? Very?

1. Not at all independent Very independent
A ___ B ___ C ___ D ___ E ___
2. Not at all emotional Very emotional
A ___ B ___ C ___ D ___ E ___
3. Very passive Very active
A ___ B ___ C ___ D ___ E ___
4. Not at all above to devote self completely to others Able to devote self completely to others
A ___ B ___ C ___ D ___ E ___
5. Very rough Very gentle
A ___ B ___ C ___ D ___ E ___
6. Not at all helpful to others Very helpful to others
A ___ B ___ C ___ D ___ E ___
7. Not at all competitive Very competitive
A ___ B ___ C ___ D ___ E ___
8. Not at all kind Very kind
A ___ B ___ C ___ D ___ E ___
9. Not at all aware of feelings of others Very aware of feelings of others
A ___ B ___ C ___ D ___ E ___
10. Can make decisions easily Has difficulty making decisions
A ___ B ___ C ___ D ___ E ___
11. Gives up very easily Never gives up easily
A ___ B ___ C ___ D ___ E ___
12. Not at all self-confident Very self-confident
A ___ B ___ C ___ D ___ E ___
13. Feels very inferior Feels very superior
A ___ B ___ C ___ D ___ E ___

14. Not at all understanding of others
A ___ B ___ C ___ D ___ E ___
Very understanding of others
15. Very cold in relations with others
A ___ B ___ C ___ D ___ E ___
Very warm in relations with others
16. Goes to pieces under pressure
A ___ B ___ C ___ D ___ E ___
Stands up well under pressure

SCORING KEY FOR THE PERSONAL ATTRIBUTES QUESTIONNAIRE

The items are scored in a "masculine" direction, that is, the most masculine response is scored 4 and the least masculine response is scored 0. The scores for each of the subscale is obtained by adding up the items for each subscale. Note that a high score on the feminine-valued items represents a more masculine response, not a more feminine response. Persons who score high-masculine high-feminine are considered androgynous.

Masculine valued subscale

Item (1) A = 0 E = 4
 Item (3) A = 0 E = 4
 Item (7) A = 0 E = 4
 Item (10) A = 4 E = 0
 Item (11) A = 0 E = 4
 Item (12) A = 0 E = 4
 Item (13) A = 0 E = 4
 Item (16) A = 0 E = 4

Feminine-valued subscale

Item (2) A = 4 E = 0
 Item (4) A = 4 E = 0
 Item (5) A = 4 E = 0
 Item (6) A = 4 E = 0
 Item (8) A = 4 E = 0
 Item (9) A = 4 E = 0
 Item (14) A = 4 E = 0
 Item (15) A = 4 E = 0

APPENDIX D
Postnatal Questionnaire

POSTNATAL QUESTIONNAIRE

1. Name: _____
2. When was your baby born? Month _____ Day _____
3. Did you have a: _____ Boy _____ Girl
4. How much did your baby weigh at birth? _____ Pounds _____ Ounces

NOTE: Please answer the following questions (5 to 11) by placing an "X" in the appropriate column.

- | | <u>Yes</u> | <u>No</u> |
|---|------------|-----------|
| 5. I had contact with my baby within the first 24 hours after delivery. | _____ | _____ |
| 6. Did your baby have any physical problems which prevented him from sucking within the first 24 hours after birth? | _____ | _____ |
| 7. The baby went home with me when I was discharged from the hospital. | _____ | _____ |
| 8. I have been physically healthy since the birth of my baby. | _____ | _____ |
| 9. The baby's father was in the delivery room. | _____ | _____ |
| 10. The baby's father was in the labor room. | _____ | _____ |
| 11. The baby was delivered vaginally. | _____ | _____ |
| 12. In the hospital: | | |
| _____ I decided to rest before going home and had the nursery watch the baby between feedings. | | |
| _____ I had rooming-in (baby in room most of day) | | |
| 13. Did you breast-feed the baby at all, even one or two days after he or she was born? | | |
| _____ yes, but I have since quit | | |
| _____ no, I did not breastfeed the baby | | |
| _____ I am still breastfeeding | | |

14. If you have quit breastfeeding, how old was the baby when you quit?

- | | |
|---|---|
| <input type="checkbox"/> under one week | <input type="checkbox"/> five to six weeks |
| <input type="checkbox"/> one to two weeks | <input type="checkbox"/> six to seven weeks |
| <input type="checkbox"/> two to three weeks | <input type="checkbox"/> eight weeks |
| <input type="checkbox"/> four to five weeks | |

15. How did you breastfeed your baby?

- without restrictions, whenever the baby cried, at any time, offering no supplemental bottles
- breastfed most all the time with an occasional supplemental bottle (2 or 3 times a week offered a bottle)
- breastfed with a frequent supplemental bottle
- other _____

16. Women vary as to how much they enjoy breastfeeding. Did you find breastfeeding:

- very pleasant
- somewhat pleasant
- neutral
- somewhat unpleasant
- very unpleasant

17. How long did you breastfeed your baby at one sitting?

- 5 to 7 minutes
- 10 to 15 minutes
- 15 to 25 minutes
- as long as the baby sucked

18. Did you find any one person, especially helpful during your breastfeeding experience? (please check one)

- | | |
|--|---|
| <input type="checkbox"/> husband | <input type="checkbox"/> friend |
| <input type="checkbox"/> mother | <input type="checkbox"/> doctor |
| <input type="checkbox"/> mother-in-law | <input type="checkbox"/> nurse |
| <input type="checkbox"/> sister | <input type="checkbox"/> other _____ |
| | <input type="checkbox"/> no one in particular |

19. Do or did you belong to:

- La Leche League
- other breastfeeding group
- no breastfeeding group

20. In the hospital did the nurses: (please check any that apply)

- answer your questions about breastfeeding sufficiently
- encourage you to breastfeed
- voluntarily offer assistance with breastfeeding

20. Continued

- ask you if you had any questions about breastfeeding
 remain uninvolved in your breastfeeding experience
 stay in the room while you breastfed the first few times
 tell you how much your baby had taken in by weighing the infant before and after you breastfed
 discuss with you your physical needs (increase need for rest, fluids, etc.) while you breastfed
 offer you reading materials about the different methods of feeding

21. During the first two weeks at home with the baby did you use:

- a diaper service
 your own cloth diapers
 primarily disposable diapers

22. Have you returned to work?

- yes, full time
 yes, part time
 no, not at this time

23. When you came home from the hospital, did you have any of the following help: (please check any that apply)

- the baby's father took time off from work
 your mother or mother-in-law helped
 a close friend or relative helped
 you had a paid babysitter
 you had a paid housekeeper
 I preferred to care for baby and husband on my own
 I cared for house and baby on my own because other help was difficult to arrange
 other _____

24. Does the baby's father: (please check all that apply)

	Frequently	Occasionally	Never
help with the housework	_____	_____	_____
do the grocery shopping	_____	_____	_____
fix the meals	_____	_____	_____
comfort the baby	_____	_____	_____
bathe the baby	_____	_____	_____
dress the baby	_____	_____	_____
diaper the baby	_____	_____	_____
feed the baby	_____	_____	_____

25. How soon after the baby's birth did you resume all your household responsibilities and activities?

- one week after delivery
 two weeks after delivery
 within one month after delivery
 by two months after delivery
 have not yet done so

26. How old was the baby when you left him alone with the baby's father for more than two hours?

- | | |
|---|---|
| <input type="checkbox"/> less than one week | <input type="checkbox"/> 4 to 5 weeks |
| <input type="checkbox"/> 1 to 2 weeks | <input type="checkbox"/> 5 to 6 weeks |
| <input type="checkbox"/> 2 to 3 weeks | <input type="checkbox"/> 6 to 7 weeks |
| <input type="checkbox"/> 3 to 4 weeks | <input type="checkbox"/> 7 to 8 weeks |
| | <input type="checkbox"/> have not yet done so |

27. Have you started your baby on solid foods yet?

- yes no

28. If you have started solids how often do you give them to the baby?

- one time a day
 2 or 3 times a day
 one time a week
 2 to 3 times a week
 other _____

29. Do you recall why you started solids?

- to help baby sleep through the night
 breast milk not rich enough
 pediatrician recommended it
 to help baby sleep longer between feedings
 to help baby gain weight
 baby seemed hungry
 more experienced friends advised me to
 baby needed more nutrition than just milk
 baby's father wanted to help feed
 other reason _____

30. Would you breast feed a future child?

- yes unsure no

31. Women sometimes have difficulty finding privacy to breastfeed.
Was privacy to breastfeed:

a definite problem, almost every day
 sometimes a problem, once or twice a week
 hardly ever a problem, once or twice a month
 never a problem

If you are still breastfeeding, please answer items #32 and #33.

If you have stopped breastfeeding, please answer items #34, #35 and #36.

32. Does the father of the baby?

want you to quit
 want you to continue breastfeeding
 doesn't care one way or the other about the feeding method used
 support whatever feeding method you choose

33. During this breastfeeding experience does the baby's father?
(please check all that apply)

encourage you to drink extra fluids
 bring you something to drink while you are breastfeeding
 encourage you to rest more than you normally would
 get up at night and bring the baby for you to feed
 express the feeling that he feels left out because he cannot feed the baby
 help you find a comfortable position, offer you pillows, etc.
 protect you from people and experiences that might interfere with your ability to breastfeed
 protect you from situations that might leave you exhausted or tense
 offer you encouragement about breastfeeding and your ability to do so

34. Women decide to stop breastfeeding for many different reasons. Below are some of the most common reasons, please indicate the three main reasons for you. (Please indicate the most important reason as #1, then #2 and #3.)

not enough milk
 too much milk
 milk too rich
 milk not fat enough
 baby could not suck
 baby rejected breast
 baby had diarrhea

34. Continued

- baby had jaundice
- baby was ill
- baby didn't gain weight
- baby cried a lot
- baby teething
- baby preferred bottle and lost interest in the breast
- baby started on cup
- baby got hungry before schedule feedings and was given the bottle
- I was given medication to dry up milk
- I was on medication harmful to the baby
- I went on the birth control pill
- I was ill
- I was too nervous
- I got pregnant
- cracked or sore nipples
- swollen or painful breasts
- breast infection
- breast too small
- baby's father was jealous
- obstetrician told me to stop
- baby's doctor told me to stop
- I couldn't find privacy
- I just didn't enjoy it
- many people discouraged me
- I always felt tired
- I wanted to return to work
- I felt too tied down
- other: _____

35. When you quit breastfeeding did the baby's father:

- support your decision
- want you to continue
- want you to stop before you did
- didn't care one way or the other what method you chose

36. During the time you were breastfeeding did the baby's father?
(Please check any that apply)

- encourage you to drink extra fluids
- bring you something to drink while you were breastfeeding
- encourage you to rest more than you normally would
- get up at night and get the baby for you to feed
- express the feeling that he felt left out because he could not feed the baby

36. Continued

- _____ help you find a comfortable position, offer you pillows, etc.
- _____ protect you from people and experiences that might interfere with your ability to breastfeed
- _____ protect you from situations that might have left you exhausted or tense
- _____ offer you frequent encouragement about your breastfeeding ability

Thank you for participating in my study. Good luck with your beautiful new baby now and always.

Janie Griffin, R.N.

AN ABSTRACT OF THE THESIS OF
JANIE KEMP GRIFFIN

For the MASTER OF NURSING

Date Receiving this Degree: June 8, 1979

Title: The Effects of Personal and Social Factors
on Mothers Success in Breat-Feeding

Approved: _____

Wilma Peterson, Ph.D.

Thesis Adviser

Survey research using a correlational and explanatory design was the study approach selected to investigate the effect of personal and social factors in a mother's background on the success of breast-feeding. The personal and social factors examined were: method by which the mother was fed as an infant, frequency and years of doll play enjoyed by the mother as a child, mother's feelings of embarrassment about breast-feeding, mother's exposure to breast-feeding before childbirth, support mother received from baby's father about breast-feeding, area of mother's up-bringing and mother's femininity.

The sample was composed of 46 primiparous mothers who reported breast-feeding for various periods from birth to eight weeks. The data was analyzed through the use of crosstabulation and regression analysis. Chi-square, Cramer's V and phi were the statistical tests used to measure the significance and strength of the relationship between the factors and success of breast-feeding.

Although the hypotheses of this study were not supported by the statistical test, crosstabulation identified four factors, embarrassment about breast-feeding, mother's exposure to breast-feeding before child-birth, method by which the mother was fed as an infant and mother's femininity, which tended to have an influence on the success of breast-feeding. Additional findings suggest that the amount of assistance the mother receives from the baby's father may affect the outcome of breast-feeding.