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Variation in Maternity Care and the Post Hospital

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VARIATION IN MATERNITY CARE AND THE POST-HOSPITAL ADJUSTMENT OF THE FAMILY

by

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CHAPTER I

INTRODUCTION

Background

The family is often referred to as the universal institution. Some kind of social grouping which can be classified as familial may be found in every society, both past and present. In many societies the family consists of the conjugal unit of husband, wife and children, which is characteristic of the American family. In most societies, however, the family is extended to include various kinship structures.[1]

The American family of today is vastly more isolated from its kinship groupings than it was in earlier periods of out culture. During the colonial period, people settled on isolated farms or in small communities. For many years, institutions other than local churches and municipal governments were weak or absent. The family had to provide the basic necessities, while if the area had been more extensively settled, these necessities could have been secured from other agencies.

Parents took charge of the education of their children, since schools were widely scattered. Formal education was available in but limited quantities. In addition to their education, the children received religious and vocational training from their parents.

The family had the responsibility of protecting and caring for its members in any situation. The rigors of frontier life called upon the members

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[1]George P. Murdock, Social Structure (New York: The Macmillan Company, 1949), p. 1.

of the family for the utmost in cooperation. Both the head of the household and his wife worked long hours and the children were called upon to do their share at an early age.

Thus, the family of that time was a relatively self-sustaining unit. New members were trained in the necessary vocational matters and were most often employed within the family.

With the growth of major cities, industrial development, and an ever-increasing population, American society encountered rapid change and diversification. Although, the expanding frontier involved a constant recurrence of the colonial process, industrial development and the growth of cities gradually desplaced the colonial system.

As industry flourished, family members were able to find employment outside of the family circle. In this manner, a degree of independance from family and relatives was obtained. As children married and became employed away from the home, they became seperated from their families. This led to diverse places of residence, circles of friends, and even a change in class position among members of the same family.

Thus, even in view of the large portion of our population living in urban areas, and the vast communications network existing at this time, the family is, in a sense, a more isolated unit. It is part of the existing norms that children will marry and live apart from their parents.

> "...marriage now tends to be regarded as the private affair of the spouses. Once couples have wed, they are expected to manage their family and household by their own devices, without much further regulation by public authorities or assistance from others."[2]

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[2]John Sirjakama, The American Family in the Twentieth Century (Cambridge: Harvard University, University Press, 1953), p.193.

The social structure of America has undergone tremendous change since the colonial period. Inevitably, the family also has been subject to a number of changes. The nature of these changes for the future of the family, has been a matter of disagreement.

Some students of the contemporary family feel that it is faced with disruption and possible dissolution as more and more of the responsibilities once handled by the family are being accounted for by other, more specialized agencies. William F. Ogburn states that the family is faced with dilemma "due to its loss of function."[3] He outlines seven functions that in times past were performed by the family.

First, and most important to Ogburn's treatment of the family, was the economic function. The family was a self-contained system. It both produced and consumed its own production. One family would occupy the same home or farm for several generations; each generation working the land or becoming employed in the family enterprise. Each generation was trained for this task by the preceding generation. Thus, because of the economic function, the second function, that of educational and occupational training, was also handled by the family.

Since the family played such an important role in the economic life of its members, it was a center of prestige. The reputation of the family had such great importance that members of the family were more often

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[3]William F. Ogburn, "The Changing Functions of the Family," Marriage and the Family, Robert F. Winch and Robert McGinnis (New York: Henry Holt and Company, 1953), p. 74. For more detailed description of the loss of family functions see William F. Ogburn and M. F. Nimkoff, Technology and the Changing Family (Boston: Houghton Mifflin Company, 1955), especially chapter six, "Shrinking Functions."

thought of in terms of their family membership than they were as distinct individuals. In this way, the family gave status to its members, the third function discussed by Ogburn.

Bound together in this way, it was natural that the members looked to the family for protection, Ogburn's fourth function. The husband was the major protector by virtue of his physical ability to protect his wife and children. The elder members of the family were important in the respect that they could provide the young with the wisdom gained through their wider range of experience. In return, the elder members of the family were given honored places in the homes of the children when they were no longer able to protect themselves. "Children were an old age insurance."[4]

The family also performed a large part of the religious function. Churches were at some distance from the home, and the family was often the sole means of religious training. This is evidenced by the "... grace at meals, family prayers, and the reading together of passages in the Bible,"[5] which was common at the time. Religious training and activity is the fifth function in Ogburn's discussion.

The sixth function, recreation, was also a family affair. Centers of recreation outside of the home were few. Community recreation, more often than not, took place at the home of one or another of the families in the community. Commercialized recreation such as we find today was non-existent.

Finally, the seventh function was that of providing "affection

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[4] Ibid., p. 75.

[5] Ibid.

between mates and the procreation of children."[6] Because of the other functions in Ogburn's scheme, the family could provide affection for its members to a greater extent than it does today.

Ogburn takes the position that all of these fuctions, with the exception of affection-reproduction, have been transferred to agencies outside of the family. Modern industry has taken over the productive aspects of the economy, and the family is now a consuming unit only. The teacher has become a substitute parent for a great part of each day and provides the educational function. Individual status has become more important than family status. The police and the government provide protection, Religion has lost its importance, and recreation has become an industry in itself.[7] The future of the family, according to Ogburn, will depend on provision of its one remaining function, that of affection and reproduction.

Ogburn's evaluation, however, is not shared by all students, of the family. It may be that the changes in the family's functions will not have such disruptive consequences as he proposes.

Whenever change occurs in a system, the elements of that system are subject to a period of disorganization. Modern society is, and has been, going through a process of rapid change. The effect that this change, occuring throughout the total system, will have on the elements and sub-

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[6] Ibid.

[7] It is interesting to note that Ogburn stresses that the loss of family function is casually related to the inventions of steam power and the contraceptive. Steam power resulted in the growth of modern cities, and the contraceptive caused more and earlier marriages. Ibid., p. 76.

systems, including the family, does not necessarily mean the ultimate decline of the family. According to Parsons,[8] the opposite is more likely to be the case.

Parsons feels that because of the strain and disorganization caused by structural changes in society, certain aspects of the family have been taken over by other sub-systems. This has occured as a series of variations among the sub-systems to maintain the system as a whole.

The transfer of functions from the family to other sub-systems means that the family is becoming more specialized. As society becomes more and more differentiated, the family, rather than declining in importance, is being depended on for the performance of certain key functions to a greater extent than ever before.[9]

Regardless of which proposed evaluation of the contemporary family is more correct, it can be said that an important contribution of the family gives to its members. The intimate relationships that exist within the family provide the members with the basis for continuing reciprocal relationships with their social environments.

The initial relationship between parent and child that is the basis of the provision of affection for new members of the family begins with life itself. From birth, the infant is involved in a relationship that is a continuation of his physical dependency on his mother and which furnishes the basis of his psychological and emotional dependency.

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[8]Talcott Parsons and Robert F. Bales, Family, Socialization and Interaction process (Glencoe, Illinois: The Free Press, 1955), pp. 3-6.

[9]Ibid., pp. 8-9.

This need on the part of the infant to be in contact with his mother not only for physical nurturance, but for emotional security as well, has been recognized for some time. In a report given at the meetings of the American Pediatric Society in 1915, it was stated that mortality rates for hospitalized infants ranged as high as nine out of ten in some institutions.[10] Physical illness alone could not account for figures as high as these. In 1932, the statement was made that more nurses should be on duty with hospitalized infants (at least one nurse for every two infants), since "the thing that worried us years ago, and still does, is hospitalism."[11] Bowlby gives further weight to this attitude from the viewpoint of mental health, saying that it is

> "...essential for mental health that the infant and young child should experience a warm, intimate, and continuous relationship with his mother (or permanent mother-substitute) in which both find satisfaction and enjoyment." (Italics mine.)[12]

Bowlby concludes that deprivation of the mother's love and care may result in the child being unable to establish relationships with other people.

Ribble,[13] from a study of 600 infants, contends that the practice of separating mother and infant leaves the infant without a high degree of

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[10]H. D. Chapin, "A Plea for Accurate Statistics in Infants Institutions," Transactions of the American Pediatric Society, Vol. XXVII, p. 180 (1915).

[11]J. Brenneman, "The Infant Ward," American Journal of Diseased Children, Vol. XLVII, p. 577, (1932). "Hospitalism" is used here to refer to the listless condition often found present in unattended children.

[12]John Bowlby, Maternal Care and Mental Health (Geneva: World Health Organization, 1952), p. 11

[13]Margaret A. Ribble, "Infantile Experience in Relation to Personality Development," in J. McV. Hunt, Personality and the Behavior Disorders, (New York: Ronald Press, 1944), pp. 621, 651.

tactual stimulation from the mother; thereby lessening the child's needed emotional and physical security.

It seems apparent that infants who have been separated from their mothers do not fare as well, either emotionally or physically, as those who have had a continuous relationship with their mother or some substitute.

It is obvious that with such a separation the family cannot give emotional support to the infant. The consequences of the lack of such emotional support can be seen in the studies mentioned above, and particularly in the work of Rene Spitz.

In a study similar to the one done by Ribble, Spitz[14] compared children in a foundling home with children in a nursery home. The difference between the two groups being that the nursery home children received comparatively greater attention. Spitz found that those children who had received more individual attention had a higher degree of both physical and emotional adjustment. The question may be (and quite probably has often been) raised of why the family should be separated in such a manner except in cases where it is necessary.

Statement of Problem

If maternal deprivation has as far-reaching effects as it seems to have from the evidence of studies previously cited, then it is probable that the common practice of separating newborn infants from their mothers has a detrimental effect on the ability of the family to establish a continous, emotionally supportive relationship between parents and infant.

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[14]Rene A. Spitz, "The Role of Ecological Factors in Emotional Development in Infancy," Child Development, Vol. XX, p. 145ff.

This practice of separating the infant from his mother is a fairly recent development. In many societies, the infant is left in his mother's care immediately following birth. This has been their practice for centuries, perhaps from the beginnings of society itself. In more modern times, in our own society, this has not been the case.

In the last sixty years, there has been a shift away from deliveries in the home. Before this shift, those deliveries which did take place in the hospital were the result of pathological cases necessitating the mother's hospitalization. Crowded conditions in urban areas increased the risk of either the mother or the infant contracting infectious disease. As a precautionary measure, many mothers chose to give birth in hospitals.

During this early period of hospital deliveries, it was the common practice to house the mothers and infants in the same ward. Much of the infant's care was still left to the mother. However, with the increase in hospital deliveries, the wards became crowded. It was soon impractical to keep a number of mothers and their infants in the same ward. To give the mothers an adequate rest period and to reduce the chance of contagion, the infants were placed in a night nursery.[15] With the success of this method in reducing diseases, and the increased satisfaction of the mothers, a pattern of maternity care came into being. The protective characteristics of the hospital and the health measures available through the hospital made the practices of maternity hospitalization and the separation of mother from

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[15]Steward H. Clifford, M.D., and Wilburt C. Davison, M.D., "The Origin of Obstetric Nurseries," The Journal of Pediatrics, Vol. VIL, pp. 205-212 (February, 1954). In the three hospitals on which Clifford and Davison could find adequate material on the dates for the institution of seperate nurseries were 1898, 1899, and 1902.

infant the customary procedure for normal and pathological cases alike.

Of late, there has been a trend toward the reversal of this procedure. With a revival of the idea that childbirth is a natural and not a pathological occurrence, the practice of separating mother and infant was given critical consideration. "Laying-in" or "rooming-in"[16] programs were started as an attempt to combat the shortage of adequate staff and facilities during World War II. Fearful of an increase of infectious diseases, many hospitals turned to arrangements other than that of the central mursery.[17]

In these recent programs an emphasis is placed on the naturalness of the birth process. In contrast to the conventional form of maternity care, the infant is kept in his mother's room for a greater part of her stay in the hospital. The amount of time that the infant is housed with the mother is usually subject to each mother's wishes. Feeding is not on a scheduled arrangement, so that the mother may hold and fondle the infant, and feed it as often as it demands. The father is not left out of the picture as is the case in conventional programs. In most rooming-in projects, he may have unrestricted visiting privileges, and even handle the new infant. There are, of course, variations from program to program. In some, the infant is placed in a room just adjacent to that of the mother during the time that he is not with her. In others, the central nursery is retained for night care of the

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[16]The term "laying-in" was used prior to the shift toward central nurseries. "Rooming-in" and "family-centered" are more recent terms. The term "rooming-in" will be used throughout this paper to refer to all three.

[17]"Rooming-in--Its Role, Its Advantages, Its Problems," Currents in Hospital Administration, Vol. I, (January, 1957).

infants. Prenatal classes are not included in all rooming-in programs, and are often found in conventional maternity care. Rooming-in programs do have in common the concept of concern for the emotional and psychological welfare of the infant, as well as his physical well-being.

The underlying assumption of a rooming-in program is that a higher degree of adjustment for the parents and for the infant can be achieved by leaving the infant in his mother's care. The parents, expecially the mother, will be better prepared to care for the infant and meet his emotional needs when the family has resumed its daily life outside of the confines of the hospital.

The purpose of such programs is to allow the family to perform its procreational-affectional function with a greater degree of continuity than is allowed by conventional care. It is assumed that this permits the family to provide affection and emotional support for the infant from an earlier starting point, and provides for greater success at later periods of the infant's emotional development.

This study attempted to evaluate one such recently instituted program in terms of its effect on the postpartum adjustment of the family. The degree to which this new type of maternity care facilitates or impairs the post-hospital adjustment of the family unit was taken as an indicator of the degree to which the new arrangement contributes to the family's performance of its major function, that is, providing affection and emotional support for its members. It was hoped that this study would effect at least a partial answer to the problem which is raised by the assumptions of rooming-in care; namely, can the family better perform its function of providing emotional support and adjustment through a continuous initial

relationship between parent and infant?

Review of Literature

Although there has been a considerable amount of professional literature published which deals specifically with the subject of rooming-in, most of it is made up of accounts from a particular viewpoint.[18] The authors give their reactions to individual programs, discussing the pros and cons of such a program as it applies to their area of specialization. They do not show what effect, if any, the program has on the subsequent adjustment of the family.

Those articles which do purport to show the advantages that rooming-in care has for the family are accounts of individual's experiences in a rooming-in program, and the effects that the program had on their family.[19]

A panel of obstetricians, pediatricians and nurses discuss the rooming-in care at St. Mary's Hospital in Evansville, Indiana in "Family-Centered Maternity Care."[20] In this article, the care program is discussed in terms of its progress in satisfying the needs of the families involved.

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[18]Some examples of these are: Edgar L. Engel, MD., "Family-Centered Maternity Care; The Doctor's Viewpoint," Hospital Progress, Vol. XLI, pp. 94-96 (June, 1960). Ralph S. Schuler, "Family-Centered Maternity Care; The Parent's Viewpoint," Ibid., pp. 98-99., Alfred B. Stein, MD., "A Pediatrician Looks at Rooming-In." The Bulletin of Maternal Welfare, Vol. II, pp. 12-14, (May-June, 1955). and Frank E. Rubovits, MD., "An Obstetrician Looks at Rooming-In," Ibid., p. 11.

[19]Ruth Hackett Webber, "I Like Rooming-In," Today's Health, Vol. XXXV, p. 33 (January, 1957)., and Abram E. and Eleanor Dansky, "Parental Reaction to Rooming-In," The Bulletin of Maternal Welfare, Vol. II, p. 17 (May-June, 1955) are examples of these.

[20]Anon., Hospital Progress, Vol. XLI, pp. 102ff. (July, 1960).

Members of a reactor panel of parents give their empressions of the care facilities also.[21]

An excellent discussion of the role of the nurse in rooming-in care is given in Family-Centered Maternity Nursing.[22] Although portions of the work deal with the general techniques of obstetrical nursing care, the author keeps much of the discussion focussed on the service of the nurse to the mother-infant relationship. The physical care in a rooming-in unit is discussed in terms of the emotional needs of the mother and the infant. In many instances throughout the book, the author gives examples of methods the nurse may employ to satisfy these needs.

Howard Wooden has written extensively on this type of maternity care. His articles stem from studies of the maternity care unit at Evansville, Indiana, mentioned above. In "Family-Centered Maternity Care: A Summary and Analysis of the Program,"[23] he denotes the attempt of such a program to meet the mother's needs for psychological and emotional gratification during the postpartum period. He makes a distinction between the

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[21]An interesting comment is given by one of the parents who described her delivery and postpartum care as "the peak of the family experience." Ibid.

[22]Ernestine Wiedenbach (New York: G. P. Putnam's Sons, 1958).

[23]Howard E. Wooden, Hospital Progress, Vol. XLI, p. 72ff. (August, 1960). Wooden also presents a theoretical comparison between rooming-in and conventional care in "The Family-Centered Approach to Maternity Care: A Reconceptualization of Traditional Hospital Maternity Care," Nursing Forum, Vol. I, pp. 60-77 (Spring, 1962). Another distinction between the two types of care is found in Howard E. Wooden, Hospital Maternity Care: Family-Centered (Evansville, Indiana: Mead Johnson Laboratories, 1961).

physical and psychological environments of the hospital; the physical environment being shaped to meet the medical and nutritional needs of the individual patient, and the psychological environment, which must be such that it meets needs of an entirely different order.

The empirical studies of rooming-in are far less numerous than the more impressionistic accounts. Of the four studies found, only two had been concerned with the post-hospital adjustment of the family.

Blomquist[24] did a follow-up study of the patients discharged from Michael Reese Hospital in Chicago. She found that all of the parents who had taken part in the rooming-in project expressed satisfaction with the maternity care arrangement. Parents were questioned on such matters as nursing care, satisfaction with the amount of contact between parents and infant, and satisfaction with the amount of rest obtained in the hospital. No comparison was made, however, with parents who had not taken part in the rooming-in project. Thus, no conclusions could be drawn concerning the effectiveness of the program in this respect.

Ringholtz and Morris[25] compared rooming-in's benefits for primaparas (first infant born to the mother) and multiparas (second, or later infant). They found that rooming-in was similarly satisfying for the mothers in both groups. Minor differences were found in that the primaparas were somewhat more anxious about their babies' care, and the multiparas had less difficulty in obtaining adequate rest. Again, no comparison was made between

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[24]Miriam M. Blomquist, "A Survey of the Rooming-In Unit at Michael Reese Hospital," The Bulletin of Maternal Welfare, Vol II, pp. 7-11 (May-June, 1955).

[25]Sharon Ringholtz, and Miriam Morris, "A Test of Some Assumptions About Rooming-In," Nursing Research, Vol. X, pp. 196-199 (Fall, 1961).

rooming-in mothers and mothers under the conventional plan.

Holman[26] compared a rooming-in ward with a conventional ward on such variables mother's unmet needs and infant's unmet needs. The study dealt primarily with the amount and quality of nursing service required in a rooming-in ward. Although a comparison between rooming-in and conventional care was made, the data for the study were gathered by observations of the amount of time spent by members of the staff to complete various "activity episodes." Parents were not questioned, and no attempt was made to distinguish between physical care requirements and psychological or emotional needs.

In a more recent unpublished study,[27] a comparison in terms of post-hospital adjustment was made in a hospital which shifted its maternity unit from conventional to rooming-in care. This afforded a comparison between types of maternity care within the same physical environment and with the same staff involved in both programs.

Parents were questioned on items such as the degree of the mother's postpartum depression, mother's and father's irritability and tension, and health problems of the infants which may have had an emotional etiology.

Although most of the indicators used in the study did not show a statistically significant difference between groups, the rooming-in groups showed markedly higher degrees of adjustment in terms of the directions of the percentage distributions on every variable.

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[26]Barbara Lucas Holman, "An Evaluation of Nursing Care on an Obstetric Service," Nursing Research, Vol. IX, pp. 125-128, (Summer, 1960).

[27]Lawrence N. Moyer, John Collette and Richard Ludtke, "Family-Centered Maternity Care and Parent's Post-Hospital Adjustment," Unpublished Study (Spring, 1964).

The indicators of post-hospital adjustment that showed differences between conventional and rooming-in care were: father's tension level while handling the infant (fifteen percent of the control group were tense, while none of the experimental group reported tenseness), mother's irritability (eighty-eight percent of the control group compared with fifty-three percent for the experimental group), and infant's health problems (twenty-one percent of the control group reported gastro-intestinal problems, as compared with six percent of the experimental group). As far as the author can ascertain, this is the only previous empirical study dealing with the effects of maternity care on the subsequent adjustment of the family.

In short, the family is the principal provider of affection and emotional support, and the dominating socialization agency in society. Proponents of rooming-in maternity care programs have assumed, both implicitly and explicitly, that rooming-in care affords the family a greater degree of post-hospital adjustment by allowing the family to function continuously, even during the period of the mother's delivery and hospitalization.

Empirical tests of the assumptions of rooming-in care are noticeably lacking in the literature. Comparisons of any kind between conventional care and rooming-in care are few. It was the aim of the present study to move in the drection of filling this void in our knowledge by analysing the results of the institution of one such rooming-in program.

CHAPTER II

PROCEDURE AND DESIGN

Setting of the Study

The setting of the study was the Deaconess Hospital in Grand Forks, North Dakota. The Deaconess was founded as St. Luke's Hospital in 1892 by Dr. J. E. Engstad, a local physician. Dr. Engstad was the owner of the hospital for seven years. During this time, the facilities of the hospital were expanded from its original ten bed capacity to accomodate thirty-five patients.

In 1899, the Grand Forks Deaconess Hospital Corporation (so named because of the corporation's plans to have the Norwegian Lutheran Deaconess Institute of Minneapolis administrate the hospital) purchased St. Luke's and changed its name to the Deaconess Hospital. Although three nurses from the Lutheran religious order came to Grand Forks to staff the hospital, no religious affiliation was instituted.

Gradually increasing in size as additions were incorporated, the Deaconess grew to its present size. There are 164 beds in the present structure of the hospital. Eighteen of these are in the maternity unit.

The facilities for maternity care grew along with the expansion of the rest of the hospital. The unit now contains nine private rooms, one double room, one three-bed ward and one four-bed ward. Other facilities within the maternity unit include; two delivery rooms, four labor rooms, a two-bed recovery room, the central nursery and the "blue room," an

alcove where the mothers are encouraged to gather.[1]

The unit staff consists of seven Registered Nurses, four Practical Nurses and Three Nurse's Aides. Members of the staff are not assigned to individual cases. Instead, the staff has revolving responsibilities, each member of the staff caring for several of the mothers and infants during any given period of duty.

The change from the conventional care procedure to the present program took place during the fall of 1964. When the recent Head of the maternity unit began her duties in August, 1964, she instituted a series of changes which would eventually result in a rooming-in program. During the month of August, demand feeding (feeding the infant at those times when he cries for food) replaced scheduled feeding. Also at this time, the fathers were given unlimited visiting privileges, and were allowed to remain in the mother's room when the baby was brought in for feeding or for care instructions. In September, the fathers were invited to attend instructions and classes in infant care, and the mothers were encouraged to use the blue room (This facility had been present for some time, but had not been expensively used until September). In October, postpartum selfcare instructions for the mother were begun.

By November, nearly all of the changes in program had been incorporated. Plans for future changes included instituting a more extensive prenatal instruction program, and various physical changes in the maternity unit such as moving the central nursery to a location where it would be more accessible to all of the mother's rooms. During November, visiting hours

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[1]See Appendix B.

were restricted for all except for the immediate family as an additional provision allowing the family to carry on its normal functions.

Population and Sample

Because the basic design of the study required a comparison of groups which were differentially exposed to the various elements of a rooming-in program, the definition of control and experimental groups varies from one comparison to the next. It was necessary to obtain a control group and an experimental group for each item of change that occured in the program. These groups included the parents of infants born before each change and those born after each change.

Because of the relatively small number of births for any given month, the sample consisted of the total population. The criteria for inclusion was determined by the births occuring between July 1, 1964 and November 30, 1964. Due to the inaccessibility of hospital records, the actual selection was taken from those births reported in the local newspaper. These birth announcements, however, do not represent all births occurring in the hospital for the given time span. Neither illigetimate births, nor the births that the parents request not be reported are included.

There are approximately forty live births per month. Of this number, three or four per month are not reported for the above-mentioned reasons. There was a total of 172 births announced in the newspaper for the period of July 1, 1964 through November 30, 1964.

A questionnaire was mailed to each of the families meeting the criteria stated above. In each case, it was addressed to the mother. Thus, the mother's reactions to the care they had received in the hospital could

be sampled more uniformly. Nine of the 172 families in the population were eliminated; five because a member of the family was employed by the hospital, three because the infant had died and one case where the mother had delivered twins. This left a population of 163.

The initial returns were not considered to be adequate (75.4%). Eight additional returns were obtained through telephone interviews by reading the items from the questionnaire to the respondents over the telephone and recording their answers on the forms. This brought the number of returns to 131 (80.4%).

Four of the remaining thirty-two families could not be contacted by mail and did not have a telephone listing. Their questionnaires were returned as undeliverable. Twenty-eight families received the questionnaire but did not return them and could not be contacted by telephone. These were sent a follow-up questionnaire but none responded to the second mailing.

Research Questions

The general question that this study attempted to answer is this: Does the type of maternity care referred to as rooming-in provide a higher degree of post-hospital adjustment for the family than does the conventional type of maternity care?

For the purposes of the study conventional care was defined as maternity care which includes the following:

(1) The infant is housed primarily in a central nursery, and is periodically brought to the mother for feeding and instructions.

(2) Feedings are scheduled. The infant is fed at regular intervals rather than on demand.

(3) The father's visiting privileges are restricted. He may see the infant only through the window of the central nursery.

(4) The father must leave the room when the infant is brought to the mother for feeding or instructions.

Rooming-in care was defined as maternity care which includes these items:

(1) The infant is housed with the mother, although he may be returned to the central nusery at the mother's request or during the night.

(2) Feedings are not scheduled. Each infant is fed on demand. Breast feeding is encouraged to bring the infant into a closer relationship with the mother.

(3) The father's visiting privileges are not restricted. He may visit at any time, even when the infant is in the mother's room.

(4) An increased emphasis on the emotional and psychological care of the mother and the infant in addition to the physical care emphasized in conventional care.

The post-hospital adjustment of the family was measured by the parent's responses on questions regarding their tension and irritability, the infant's health problems and other, similar indicators. The degree of adjustments was defined in the group comparisons in terms of the frequency with which absence of tension and the other variables mentioned above were

reported. The month following the mother's and infant's return home from the hospital period. This period may or may not have long-range implications for the later adjustment of the family. The assumption is, of course, that it will. What these implications might be remains to be uncovered by further research.

The specific derivations of the general research question may be stated in this manner: 1) Does rooming-in provide the parents with a higher degree of post-hospital adjustment to the new infant? 2) Does rooming-in provide a higher degree of adjustment for the infant to his parents and to his new environment: 3) Does rooming-in provide a higher degree of post-hospital adjustment, or re-adjustment, between parents?

(1) Adjustment of parents to infant. - The parents were considered to have a high degree of post-hospital adjustment to the infant if low incidences of tension, irritability and nervousness while handling the baby were reported. A comparison was made on indicators for each detail of the new program. By doing so, each item of difference between rooming-in and conventional care could be seperately examined to reveal the extent to which it was influential in the parents' post-hospital adjustment. Stated in operational terms, the specific question concerning the parents' post-hospital adjustment is: Were there fewer incidents of tension, irritability, and nervousness reported by those parents who took part in each detail of the rooming-in program than there were reported by those parents who did not take part in each detail?[2]

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[2]See questions five, six, eleven, twelve and thirteen, Part II Appendix A.

(2) Adjustment of infant to parents and home. - In terms of a gross definition, the infant was considered adjusted when no health problems, especially gastro-intestinal problems, were present. More precisely, the degree of the infant's post-hospital adjustment was operationally defined as the degree to which the parents reported the absence of health and feeding problems on the part of the infant.[3] Stated in these terms, the specific question on the infant's post-hospital adjustment to the parents and the home was: Were there less health and feeding problems of infants reported by parents who took part in each detail of the rooming-in program than there were reported by those parents who did not take part in each detail of the program? Again, adjustment indicators were compared for each variation between programs.

(3) Adjustment between parents. - A high degree of post-hospital adjustment between parents was operationally defined as a reported low incidence of irritability between parents, low tension levels and a low frequency of anxiety responses on the part of the mother about possible changes in the relationship between her and her husband.[4] When viewed in these terms, the specific question relating to the post-hospital adjustment or readjustment of the parents was: Were there fewer reported incidents of irritability, tension between parents and anxiety about their future relationship for those parents participating in the various rooming-in details than there were for those parents who did not participate in those details?

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[3]See Appendix A, questions one, and two, Part II. Question five, Part IV were used for an additional indication of the infants post-hospital adjustment.

[4]See Appendix A, questions ten, eleven, twelve and thirteen in Part II.

The same method employed for the other post-hospital adjustment indicators, that of comparing the two programs on each variation, was also used to judge the parents' post-hospital adjustment.

To insure comparability the groups were compared on relevant background variables such as age number of previous children, etc., to minimize the incident of outside factors influencing the findings. In addition to the background questions and the questions mentioned above, the mothers were asked to respond to questions concerning the type of care they received while in the hospital and their reactions to the care facilities.[5] It was hoped that their responses, expecially the voluntary responses to an open-ended question, would make additional comparisons of the two programs possible.

Data Analysis

The statistical techniques employed in the analysis followed conventional procedures. The data were analyzed by using Chi Square measures of difference. This method requires no assumptions about the distribution of the sample, nor about the continuity of the population in question. The variables dealt with in this study and the relatively small size of the population (163) prohibited the use of techniques based on the assumption of a normal distribution. Significance was accepted when $P < .05$.[6]

In some instances, the respondents making up the control group

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[5]See questions one and four, Part IV and seven, eight, and nine, PartII in Appendix A.

[6]Tables used for determining the probability values may be found in Sidney Siegel, Nonparametric Statistics (New York: McGraw-Hill Book Company, Inc., 1956), p. 249.

were involved in the care procedure just prior to a change in the program. Change in the program constituted the experimental variable; the control groups and the experimental groups could not therefore be viewed as representative of conventional or rooming-in care programs in general because in almost every instant a given group was participating in some aspects of both care programs. They were, however, representative of maternity cases at the Deaconess Hospital at the time of the study, since a total sample was taken.

Although the study was basically descriptive in design, some inferences were made. This is in accordance with the use of Chi Square, since this technique is partially inferential. This was done with caution, however, and in a strict sense, generalizations applied only to the care arrangements at the Deaconess Hospital.

CHAPTER III

FINDINGS

The indicators used in the comparisons of post-hospital adjustment between the groups of parents who were differentially exposed to the various rooming-in elements were: tension between the parents, the mother's irritability and nervousness while handling the infant, the father's irritability and his nervousness while handling the infant. Indicators used for the infants post-hospital adjustment were health items which, because they are often characterized as having an emotional etiology, could be used as a reflection of the infant's adjustment to his parents and environment.

The various phases of the new maternity program which determined the several control and experimental groups were as follows:

(1) Whether or not the father was present in the mother's room with the infant,

(2) Whether the infant was on demand feeding or a fixed feeding schedule,

(3) Whether or not the mother had received infant care instructions.

An additional comparison of groups was made, using the births reported for July (when no innovations had yet been made) as a control group, and the births reported for November (when the program was virtually completed) as an experimental group. The original study plans had included a comparison between fathers who were present at delivery and fathers who were not present, however, there was only one respondent who reported the father to be present at delivery, thus disallowing a comparison on this variable.

In cross-tabulating the data for the various groupings, comparisons were made on background information which might have influenced the responses given. These included the sex and birth weight of the infant, breast versus bottle feeding, the possibility of birth complications and demographic data on the parents. (See Appendix C, Tables 61 through 65).

In most instances, very little difference was found between the groups being compared. There were three major exceptions to this general comparability. Two were the number of children and the arrangement in the home for housing the infant on the comparison between the groups differentiated by the father's presence with the baby. (See Tables 1 and 2).

TABLE 1

FATHER IN ROOM BY NUMBER OF CHILDREN

	Number of Children			
Groups	Primapara	Multipara	No Data	Total
Not Present	5(11.9%)	37(88.1%)	. .	42(100%)
Present	26(29.5%)	62(70.5%)	. .	88(100%)
No Data	. .	1(100%)	. .	1(100%)
Totals	31(23.7%)	100(76.3%)	. .	131(100%)

$X^2 = 5.891$; $P < .02$

TABLE 2

FATHER IN ROOM BY SEPARATE ROOM FOR INFANT

	Separate Room			
Groups	Yes	No	No Data	Total
Not Present	5(11.9%)	37(88.1%)	. .	42(100%)
Present	25(28.4%)	63(71.6%)	. .	88(100%)
No Data	. .	1(100%)	. .	1(100%)
Totals	30(22.9%)	101(77.1%)	. .	131(100%)

$X^2 = 5.341$; $P < .05$

These differences were controlled on, thus allowing comparisons to be made between the groups determined by the father's presence in the mother's room with the infant.

The other was the amount of assistance the mothers had with the new infant on the comparison between July and November births. (See table 3).

TABLE 3

CONVENTIONAL AND ROOMING-IN CARE
BY ASSISTANCE WITH INFANT

	Assistance			
Groups	Yes	No	No Data	Total
Conventional	13(33.3%)	26(66.7%)	. .	39(100%)
Rooming-In	5(23.8%)	16(76.27%)	. .	21(100%)
Totals	18(30.0%)	42(70.0%)	. .	60(100%)

X^2 = .223; P, n. s.

Although not statistically significant, the difference between the groups determined by the month of birth may have introduced a bias in favor of the control group (July births), since they had more assistance with their infants. The small frequencies which would have resulted from imposing controls on this variable prohibited eliminating this possibility.

Adjustment of the parents to the infant

When compared on the father's presence, no significant differences on parent's post-hospital adjustment indicators were found. When controlled on the background items shown in Tables one and two, however, the direction of the distributions showed a lower tension level and less irritability for the parents in the experimental group. (See Tables 50, 51 and 52).

The fathers in the experimental group, those who had contact

with the infant, were also less inclined to be "very nervous while handling the infant." (See Table 4).

TABLE 4

FATHER IN ROOM WITH INFANT
BY FATHER'S NERVOUSNESS

Reported Nervousness	Groups			
Response	Not Present	Present	No Data	Total
Very Relaxed	6(16.2%)	14(22.6%)	. .	20(20.0%)
Relaxed	27(73.0%)	41(66.1%)	1(100%)	69(69.0%)
Nervous	2(5.4%)	5(8.1%)	. .	7(7.0%)
Very Nervous	1(2.7%)	. .	. .	1(1.0%)
No Data	1(2.7%)	2(3.2%)	. .	3(3.0%)
Total	37(100%)	62(100%)	1(100%)	100(100%)

Although the two groups reported the same percentage of nervousness, 8.1 percent, those who were in the room reported that 22.6 percent were very relaxed, compared with 16.2 percent for those not present with the infant. While this is not statistically significant, it is indicative of a lessening of nervousness for the fathers who had an early initial contact with the infant.

The mothers in the control group (fathers not present) also reported that 8.1 percent were nervous while handling the infant. The experimental group (fathers present) reported that 11.3 percent experienced some nervousness. (See Table 5).

Even though more of the mothers in the experimental group reported some degree of nervousness, 43.6 percent of this group was very relaxed, as compared with 35.1 percent of the control group. (See Table 5).

TABLE 5

FATHER IN ROOM WITH INFANT
BY MOTHER'S NERVOUSNESS

Reported Nervousness

Groups

Response	Not Present	Present	No Data	Total
Very Relaxed	13(35.1%)	27(43.6%)	. .	40(40.0%)
Relaxed	20(54.1%)	28(45.2%)	1(100%)	49(49.0%)
Nervous	3(8.1%)	6(9.7%)	. .	9(9.0%)
Very Nervous	. .	1(1.6%)	. .	1(1.0%)
No Data	1(2.7%)	. .	. .	1(1.0%)
Total	37(100%)	62(100%)	1(100%)	100(100%)

Thus, generally, the practice of allowing contact between father and infant in the hospital was somewhat beneficial to the post-hospital adjustment of the parents to the infant. The differences were not, however, without some ambiguity. It should also be noted that when controlled on the items shown in Tables one and two, the comparisons were made from fairly small frequencies.

When the type of feeding arrangement was used to differentiate the control and experimental groups, again, there were no great differences found on the parent's nervousness and irritability levels. This was not surprising as the feeding arrangements were primarily intended for comparisons on the infant's adjustment to the home.

Somewhat larger differences were found on the indicator for tension between parents. (See Table 6). Sixty percent of the control group (scheduled feeding) reported no tension between parents compared with 70.6 percent for the experimental group (demand feeding).

TABLE 6

DEMAND FEEDING BY TENSION BETWEEN PARENTS

	Reported Tension				
Groups	Very Much	Somewhat	None	No Data	Total
Schedule Feeding	. . .	16(40.9%)	23(60.0%)	. .	39(100%)
Demand Feeding	1(1.1%)	25(27.2%)	65(70.6%)	1(1.1%)	92(100%)
Total	1(0.7%)	41(31.3%)	88(67.2%)	1(0.7%)	131(100%)

$X^2 = 1.408$; P, n. s.

Although not statistically significant, the 10 percent greater "not at all" response of the experimental group was in the expected direction. The demand feeding found in the rooming-in program may have had this much effect on the post-hospital adjustment of the parents.

When groups were differentiated by participation in infant care instructions, the comparisons showed them to be similar on the parent's degrees of nervousness while handling the infant. (See Tables 7 and 8).

TABLE 7

INSTRUCTIONS IN INFANT CARE
BY MOTHER'S NERVOUSNESS

	Reported Nervousness		
	Groups		
Response	No Instructions	Instructions	Total
Very Relaxed	22(38.6%)	30(40.6%)	52(39.7%)
Relaxed	30(52.6%)	34(46.0%)	64(48.9%)
Nervous	5(8.7%)	8(10.8%)	13(9.9%)
Very Nervous	. .	1(1.3%)	1(0.8%)
No Data	. .	1(1.3%)	1(0.8%)
Total	57(100%)	74(100%)	131(100%)

While the mothers in the experimental group reported higher degrees of nervousness, they also reported 40.6 percent were very relaxed, compared with 38.6 percent "very relaxed" for the control group.

Responses on the Father's nervousness were more nearly alike for both groups, with the experimental group (instructions given) showing slightly more relaxation than the control group (no instructions). This, of course, might be anticipated given that it was the mother's who received the misfructions.

TABLE 8

INSTRUCTIONS IN INFANT CARE
BY FATHER'S NERVOUSNESS

	Reported Nervousness		
	Groups		
Response	No Instructions	Instructions	Total
Very Relaxed	12(22.8%)	16(21.6%)	28(21.4%)
Relaxed	35(61.4%)	49(66.2%)	84(64.2%)
Nervous	5(8.7%)	6(8.1%)	11(8.4%)
Very Nervous	3(5.3%)	1(1.3%)	4(3.1%)
No Data	2(3.5%)	2(2.7%)	4(3.1%)
Total	57(100%)	74(100%)	131(100%)

The responses of the two groups were also very similar for the question pertaining to the father's degree of irritability. The percentage distributions were nearly the same for each response. (See Table 9).

TABLE 9

INSTRUCTIONS IN INFANT CARE
BY FATHER'S IRRITABILITY

Reported Irritability	Groups		
Response	No Instructions	Instructions	Total
Very Much	. .	. .	. .
Moderate	3(5.3%)	4(5.4%)	7(5.3%)
Slight	15(26.3%)	18(24.3%)	33(25.8%)
None	39(68.4%)	51(68.9%)	90(68.8%)
No Data	. .	1(1.3%)	1(0.8%)
Total	57(100%)	74(100%)	131(100%)

X^2 = .004; P, n. s.

The mothers in the experimental group (instructions given) showed a greater spread of responses on comparisons by mothers irritability than did the mothers in the control group. (See Table 10).

TABLE 10

INSTRUCTIONS IN INFANT CARE
BY MOTHER'S IRRITABILITY

Reported Irritability	Groups		
Response	No Instructions	Instructions	Total
Very Much	. .	7(9.5%)	7(5.3%)
Moderate	10(17.5%)	15(20.3%)	25(19.1%)
Slight	30(52.6%)	35(47.3%)	65(49.7%)
None	17(29.8%)	17(22.9%)	34(26.0%)
No Data	. .	. .	. .
Total	57(100%)	74(100%)	131(100%)

X^2 = .175; P, n. s.

The experimental group reported 9.5 percent "very irritable," while none of the control group were in this category. Also 22.9 percent of the experimental group reported no irritability at all, while 29.8 percent of the control group reported themselves "not irritable". (See Table 10).

The responses on tension between parents revealed less tension for the experimental group. (See Table 11). There was 71.7 percent of the experimental group (instructions given) having no tension at all, compared with 63.2 percent for the control group (no instructions).

TABLE 11

INFANT CARE INSTRUCTIONS BY
TENSION BETWEEN PARENTS

	Reported Tension		
	Groups		
Response	No Instructions	Instructions	Total
Very Much	. .	1(1.3%)	1(0.7%)
Somewhat	21(36.8%)	20(27.0%)	41(31.3%)
None	36(63.2%)	53(71.7%)	89(68.0%)
No Data	. .	. .	. .
Total	57(100%)	74(100%)	131(100%)

It should be noted that some of the fathers in the experimental group may have been present when the instructions were given. However, controlling on the father's presence at instructions would have resulted in very small frequencies, therefore, no comparison was made.

Apparently, there was little if any effect on the post-hospital adjustment of the parents to the infant resulting from the infant care instructions. Mother's reported degree of irritability, (see Table 10) was in the opposite direction of that which was expected. Tension between the parents, (see Table 11) may have been reduced in some instances, but the results are not clear.

The next comparison was made using the births during July (no rooming-in features) as a control group and the births during November (completely rooming-in) as an experimental group. This was done in order to obtain a more general comparison than those which used individual program phases.

The experimental group reported less tension between parents than did the control group on these comperisons. (See Table 12).

TABLE 12

CONVENTIONAL AND ROOMING-IN CARE BY TENSION BETWEEN PARENTS

	Reported Tension				
Groups	Very Much	Somewhat	None	No Data	Total
July	. .	16(41.0%)	23(59.0%)	. .	39(100%)
November	. .	7(33.3%)	14(66.7%)	. .	21(100%)
Total	. .	23(38.3%)	37(61.7%)	. .	60(100%)

$X^2 = 1.522$; P, n. s.

Two-thirds (66.7%) of the experimental group reported no tension at all, compared with 59.0 percent for the control group.

Father's nervousness was also less in the experimental group. The percentage of fathers in the control group (July Births) who indicated some degree of nervousness was twice that of the experimental group. (See Table 13). Also, 28.6 percent of the experimental group fathers were "very relaxed," compared with 20.5 percent for the control group.

TABLE 13

CONVENTIONAL AND ROOMING-IN CARE BY
FATHER'S NERVOUSNESS

	Reported Nervousness		
	Groups		
Response	July	November	Total
Very Relaxed	8(20.5%)	6(28.6%)	14(23.3%)
Relaxed	27(69.2%)	13(11.9%)	40(66.7%)
Nervous	2(5.1%)	1(4.8%)	3(5.0%)
Very Nervous	2(5.1%)	. .	2(3.3%)
No Data	. .	1(4.8%)	1(1.7%)
Total	39(100%)	21(100%)	60(100%)

$X^2 = 1.436$; P, n. s.

The distributions on mother's nervousness were more similar, (see Table 14). Although more of the experimental group reported some nervousness, they also had a greater percentage of "very relaxed" responses.

TABLE 14

CONVENTIONAL AND ROOMING-IN CARE BY
MOTHER'S NERVOUSNESS

	Reported Nervousness		
	Groups		
Response	July	November	Total
Very Relaxed	14(35.9%)	9(42.9%)	23(38.3%)
Relaxed	22(56.4%)	10(47.6%)	32(53.3%)
Nervous	3(77.7%)	1(4.8%)	4(6.7%)
Very Nervous	. .	1(4.8%)	1(1.7%)
No Data	. .	. .	. .
Total	39(100%)	21(100%)	60(100%)

Responses on father's degree of irritability were also similar,

although more of the control group (July births) reported no irritability at all. There was 66.7 percent of the control group reporting no irritability, compared with 57.1 percent for the experimental group. (See Table 15).

TABLE 15

CONVENTIONAL AND ROOMING-IN CARE BY FATHER'S IRRITABILITY

	Reported Irritability		
	Groups		
Response	July	November	Total
Very Much	. .	. .	. .
Moderate	3(7.7%)	2(9.5%)	5(8.3%)
Slight	10(25.6%)	7(33.3%)	17(28.4%)
None	26(66.7%)	12(57.1%)	38(63.3%)
No Data	. .	. .	. .
Total	39(100%)	21(100%)	60(100%)

The mothers in the rooming-in arrangement reported more irritability than did those mothers who participated in the conventional plan. When the cells of response frequencies were combined for a Chi Square analysis, a significant difference was found. (See Table 16).

TABLE 16

CONVENTIONAL AND ROOMING-IN CARE BY MOTHER'S IRRITABILITY

	Reported Irritability			
Groups	Irritable	Not Irritable	No Data	Total
July	28(71.8%)	11(28.2%)	. .	39(100%)
November	20(95.2%)	1(4.8%)	. .	21(100%)
Total	48(80.0%)	12(20.0%)	. .	60(100%)

$X^2 = 4.450$; $P < .05$

The mothers who participated in rooming-in care reported a significantly greater degree of irritability than the mothers under conventional care. This and the other differences shown could be due, in part, to the less assistance with the care of the infant that the mothers in the experimental group (rooming-in) received. (See Table 3).

Adjustment of the infant to the parents

The indicators used in the evaluation of the infant's post-hospital adjustment were vomiting, colic, constipation, diarrhea, refusing food, diaper rash and formula finding problems. The category, "other," was also used. Typical responses to the request for specification of what the problem was when this item was checked were skin rash, allerfies; or, in some cases, a variation of one of the listed health items.

Control and experimental groups were determined in the same manner as they were for the parent's adjustment comparisons. Again, the father's presence or absence at delivery could not be used because of the lack of respondents in the experimental group (father present at delivery).

When comparisons were made on the groups determined by the father's presence with the infant in the mother's room, diaper rash, diarrhea and formula finding problems were not in the expected direction. (See Tables 17, 18 and 19).

TABLE 17

FATHER IN ROOM BY INFANT'S DIAPER RASH

	Reported Diaper Rash			
Groups	Yes	No	No Data	Total
Not Present	4(10.8%)	31(83.8%)	2(5.4%)	37(100%)
Present	11(17.7%)	50(80.7%)	1(1.6%)	62(100%)
No Data	. .	1(100%)	. .	1(100%)
Total	15(15.0%)	82(82.0%)	3(3.0%)	100(100%)

TABLE 18

FATHER IN ROOM BY INFANT'S DIARRHEA

	Reported Diarrhea			
Groups	Yes	No	No Data	Total
Not Present	3(8.1%)	32(86.5%)	2(5.4%)	37(100%)
Present	8(12.9%)	53(85.5%)	1(1.6%)	62(100%)
No Data	1(100%)	. .	. .	1(100%)
Total	12(12.0%)	85(85.0%)	3(3.0%)	100(100%)

TABLE 19

FATHER IN ROOM BY FORMULA FINDING PROBLEMS

	Reported Problems			
Groups	Yes	No	No Data	Total
Not Present	4(10.8%)	31(83.8%)	2(5.4%)	37(100%)
Present	7(11.3%)	55(88.7%)	. .	62(100%)
No Data	. .	1(100%)	. .	1(100%)
Total	11(11.0%)	87(87.0%)	2(2.0%)	100(100%)

For these indicators the control group (father not present) gave slightly

lower percentages of positive responses than did the experimental group (father present). The other indicators showed more favorable responses, in terms of the absence of health and feeding problems, for the experimental group. (See Tables 20 through 24).

TABLE 20

FATHER IN ROOM BY INFANT'S VOMITING

	Reported Vomiting			
Groups	Yes	No	No Data	Total
Not Present	8(21.6%)	29(78.4%)	. .	37(100%)
Present	10(16.1%)	52(83.9%)	. .	62(100%)
No Data	. .	1(100%)	. .	1(100%)
Total	18(18.0%)	82(82.0%)	. .	100(100%)

X^2 = .272; P, n. s.

TABLE 21

FATHER IN ROOM BY INFANT'S COLIC

	Reported Colic			
Groups	Yes	No	No Data	Total
Not Present	10(27.0%)	27(73.0%)	. .	37(100%)
Present	13(21.0%)	49(79.0%)	. .	62(100%)
No Data	1(100%)	. .	. .	1(100%)
Total	24(24.0%)	76(76.0%)	. .	100(100%)

X^2 = .619; P, n. s.

TABLE 22

FATHER IN ROOM BY INFANT'S REFUSING FOOD

	Refusing Food			
Groups	Yes	No	No Data	Total
Not Present	2(5.4%)	34(91.9%)	1(2.7%)	37(100%)
Present	2(3.2%)	60(96.8%)	. .	62(100%)
No Data	. .	1(100%)	. .	1(100%)
Total	4(4.0%)	95(95.0%)	1(1.0%)	100(100%)

TABLE 23

FATHER IN ROOM BY INFANT'S CONSTIPATION

	Reported Constipations			
Groups	Yes	No	No Data	Total
Not Present	4(10.8%)	31(83.8%)	2(5.4%)	37(100%)
Present	5(8.1%)	56(90.3%)	1(1.6%)	62(100%)
No Data	. .	1(100%)	. .	1(100%)
Total	9(9.0%)	88(88.0%)	3(3.0%)	100(100%)

X^2 = .019; P, n. s.

TABLE 24

FATHER IN ROOM BY OTHER PROBLEMS

	Reported Problems			
Groups	Yes	No	No Data	Total
Not Present	5(13.5%)	30(81.1%)	2(5.4%)	37(100%)
Present	6(9.7%)	55(88.7%)	1(1.6%)	62(100%)
No Data	. .	1(100%)	. .	1(100%)
Total	11(11.0%)	86(86.0%)	3(3.0%)	100(100%)

X^2 = .093; P, n. s.

None of these differences were statistically significant. However, the

the direction of distribution on the majority of the indicators used does lend some credence to the assumption that contact between the father and the infant has little ill effect on the infant's health and adjustment to the home and parents.

No significant differences were found when comparisons were made on the type of feeding arrangement. Some definite, although contradictory, distribution directions were found, however.

Refusing food and diaper rash were similar for both the control group (scheduled feedings) and the experimental group (demand feeding). Differences in both cases while less than three percent were in the expected direction. (See Tables 25 and 26).

TABLE 25

DEMAND FEEDING BY INFANT'S REFUSING FOOD

	Reported Refusing Food			
Groups	Yes	No	No Data	Total
Scheduled	2(5.1%)	37(94.9%)	. .	39(100%)
Demand	2(2.2%)	89(97.8%)	1(1.1%)	92(100%)
Total	4(3.0%)	126(96.3%)	1(0.7%)	121(100%)

X^2 = .098; P, n. s.

TABLE 26

DEMAND FEEDING BY INFANT'S DIAPER RASH

	Reported Diaper Rash			
Groups	Yes	No	No Data	Total
Scheduled	6(15.4%)	33(84.6%)	. .	39(100%)
Demand	13(14.1%)	76(82.6%)	3(3.3%)	92(100%)
Total	19(14.1%)	109(83.3%)	3(2.3%)	131(100%)

X^2 = .025; P, n. s.

Incidents of constipations and "other" were more frequent in the experimental group than in the control group. (See Tables 27 and 28).

TABLE 27

DEMAND FEEDING BY INFANT'S CONSTIPATION

	Reported Constipation			
Groups	Yes	No	No Data	Total
Scheduled	7(18.0%)	32(82.0%)	. .	39(100%)
Demand	5(5.4%)	84(91.3%)	3(3.3%)	92(100%)
Total	12(9.2)	116(88.6%)	3(2.3%)	131(100%)

X^2 = 3.490; P, n. s.

TABLE 28

DEMAND FEEDING BY OTHER PROBLEMS

	Reported Problems			
Groups	Yes	No	No Data	Total
Scheduled	7(18.0%)	32(32.0%)	. .	39(100%)
Demand	6(6.5%)	83(90.2%)	3(3.3%)	92(100%)
Total	13(9.9%)	115(87.7%)	3(2.3%)	131(100%)

X^2 = 2.620; P, n. s.

The other indicators, vomiting, colic, formula finding problems and diarrhea were not in the expected directions. Differences however, were not large enough to be statistically significant. (See Tables 29 through 32).

TABLE 29

DEMAND FEEDING BY INFANT'S VOMITING

	Reported Vomiting			
Groups	Yes	No	No Data	Total
Scheduled	4(10.3%)	35(89.7%)	. .	39(100%)
Demand	17(18.5%)	75(81.5%)	. .	92(100%)
Total	21(16.0%)	110(84.0%)	. .	131(100%)

X^2 = .836; P, n. s.

TABLE 30

DEMAND FEEDING BY INFANT'S COLIC

	Reported Colic			
Groups	Yes	No	No Data	Total
Scheduled	8(20.5%)	31(79.5%)	. .	39(100%)
Demand	25(27.2%)	67(72.8%)	. .	92(100%)
Total	33(25.2%)	98(74.8%)	. .	131(100%)

X^2 = .341; P, n. s.

TABLE 31

DEMAND FEEDING BY FORMULA FINDING PROBLEMS

	Reported Problems			
Groups	Yes	No	No Data	Total
Scheduled	2(5.1%)	37(94.9%)	. .	39(100%)
Demand	12(13.0%)	78(84.8%)	2(2.2%)	92(100%)
Total	14(10.7%)	115(87.9%)	2(1.5%)	131(100%)

X^2 = 2.825; P, n. s.

TABLE 32

DEMAND FEEDING BY INFANT'S DIARRHEA

	Reported Diarrhea			
Groups	Yes	No	No Data	Total
Scheduled	2(5.1%)	37(94.9%)	. .	39(100%)
Demand	11(12.0%)	78(84.7%)	3(3.3%)	92(100%)
Total	13(9.9%)	115(87.9%)	3(2.3%)	131(100%)

X^2 = .182; P, n. s.

These indicators showed that differences, although not significant, did exist between the two groups. That these differences were not in the same direction for all indicators does not alter the fact that there were more health problems reported for those infants fed on demand.

It could be concluded from this evidence that placing the infant on demand feeding rather than on a fixed feeding schedule did not increase the infant's level of post-hospital adjustment.

When the groups differentiated by infant care instructions were compared, it was found that the control group (noinstructions), generally, had more favorable responses to the infant health items than the experimental group.

Although similar to the experimental group on incidence of colic and refusing food (see Tables 33 and 34), the control group reported less vomiting. (See Table 35).

TABLE 33

INFANT CARE INSTRUCTIONS BY INFANT'S COLIC

	Reported Colic			
Groups	Yes	No	No Data	Total
No Instructions	16(24.2%)	41(75.8%)	. .	57(100%)
Instructions	20(27.2%)	54(72.8%)	...	74(100%)
Total	36(27.5%)	95(72.5%)	. .	131(100%)

$X^2 = 1.408$; P, n. s.

TABLE 34

INFANT CARE INSTRUCTIONS BY INFANT'S REFUSING FOOD

	Reported Refusing Food			
Groups	Yes	No	No Data	Total
No Instructions	2(3.5%)	55(96.5%)	. .	57(100%)
Instructions	2(2.7%)	71(95.9%)	1(1.3%)	74(100%)
Total	4(3.1%)	126(96.3%)	1(1.6%)	131(100%)

TABLE 35

INFANT CARE INSTRUCTIONS BY INFANT'S VOMITING

	Reported Vomiting			
Groups	Yes	No	No Data	Total
No Instructions	6(10.5%)	51(89.5%)	. .	57(100%)
Instructions	15(20.3%)	59(79.7%)	. .	74(100%)
Total	21(16.0%)	110(84.0%)	. .	131(100%)

$X^2 = 1.701$; P, n. s.

Nearly ten percent more vomiting occurrd in the experimental group (instructed) than in the control group (not instructed). Similar distributions, all contrary to the expected direction, were found for diaper rash, diarrhea and formula finding. (See Tables 36, 37 and 38).

TABLE 36

INFANT CARE INSTRUCTIONS BY INFANT'S DIAPER RASH

	Reported Diaper Rash			
Groups	Yes	No	No Data	Total
No Instructions	6(10.5%)	51(89.5%)	. .	57(100%)
Instructions	12(16.2%)	59(79.7%)	3(4.0%)	74(100%)
Total	18(13.2%)	110(84.0%)	3(2.3%)	131(100%)

$X^2 = 2.007$; P, n. s.

TABLE 37

INFANT CARE INSTRUCTIONS BY INFANT'S DIARRHEA

	Reported Diarrhea			
Groups	Yes	No	No Data	Total
No Instructions	3(5.3%)	54(94.7%)	. .	57(100%)
Instructions	10(13.5%)	61(86.5%)	3(4.0%)	74(100%)
Total	13(9.9%)	115(87.8%)	3(2.3%)	131(100%)

TABLE 38

INFANT CARE INSTRUCTIONS FORMULA FINDING PROBLEMS

	Reported Problems			
Groups	Yes	No	No Data	Total
No Instructions	4(7.0%)	53(93.0%)	. .	57(100%)
Instructions	10(13.5%)	62(83.8%)	2(2.7%)	74(100%)
Total	14(10.7%)	115(87.8%)	2(1.5%)	131(100%)

$X^2 = 1.194$; P, n. s.

On only two of the infants health items, constipation and "other," did the directions of the distributions show less problems for the group in which the mother had received infant care instructions. (See Tables 39 and 40).

TABLE 39

INFANT CARE INSTRUCTIONS BY INFANT'S CONSTIPATION

	Reported Constipation			
Groups	Yes	No	No Data	Total
No Instructions	7(12.3%)	50(87.7%)	. .	57(100%)
Instructions	5(6.8%)	66(89.2%)	3(4.0%)	74(100%)
Total	12(9.2%)	116(88.6%)	3(2.3%)	131(100%)

$X^2 = 1.136$; P, n. s.

TABLE 40

INFANT CARE INSTRUCTIONS BY OTHER PROBLEMS

	Reported Problems			
Groups	Yes	No	No Data	Total
No Instructions	7(12.3%)	50(87.7%)	. .	57(100%)
Instructions	4(5.4%)	67(90.6%)	3(4.0%)	74(100%)
Total	11(8.4%)	117(89.4%)	3(2.3%)	131(100%)

$X^2 = 1.235$; P, n. s.

Thus, one might conclude that instructing the mothers in the care of their infants did not, generally, have the expected effect on the infant's post-hospital adjustment. Though not significant, the differences found between the groups on this comparison did point out a majority of favorable responses for those infants in the control group, who had no instructions.

As pointed out earlier (see Table 3), the groups differentiated by month of birth were comparable on all items except that of assistance with the infant. Again, the possibility of a bias was introduced, but the direction of the bias is a matter of specification.

Although very similar on the reported incidence of diaper rash (see Table 41), the two groups were somewhat differentiated by the other items. None of these differences were, however, statistically significant.

TABLE 41

CONVENTIONAL AND ROOMING-IN CARE BY INFANT'S DIAPER RASH

	Reported Diaper Rash			
Groups	Yes	No	No Data	Total
July	6(15.4%)	33(84.6%)	. .	39(100%)
November	3(14.3%)	16(76.2%)	2(9.5%)	21(100%)
Total	9(15.0%)	49(81.7%)	2(3.3%)	60(100%)

The control group reported fewer problems associated with vomiting, formula finding and diarrhea, but these percentage differences were not large. (See Tables 42, 43 and 44).

TABLE 42

CONVENTIONAL AND ROOMING-IN CARE BY INFANT'S VOMITING

	Reported Vomiting			
Groups	Yes	No	No Data	Total
July	4(10.3%)	35(89.7%)	. .	39(100%)
November	4(19.1%)	17(80.9%)	. .	21(100%)
Total	8(13.3%)	52(86.7%)	. .	60(100%)

TABLE 43

CONVENTIONAL AND ROOMING-IN CARE BY FORMULA FINDING PROBLEMS

	Reported Problems			
Groups	Yes	No	No Data	Total
July	2(5.1%)	37(94.9%)	. .	39(100%)
November	3(14.3%)	17(80.9%)	1(4.8%)	21(100%)
Total	5(8.3%)	54(90.0%)	1(1.7%)	60(100%)

TABLE 44

CONVENTIONAL AND ROOMING-IN CARE BY INFANT'S DIARRHEA

	Reported Diarrhea			
Groups	Yes	No	No Data	Total
July	2(5.1%)	37(94.9%)	. .	39(100%)
November	3(14.3%)	16(76.2%)	2(9.5%)	21(100%)
Total	5(8.3%)	53(88.4%)	2(3.3%	60(100%)

A greater difference was found on the reported incidents of colic. (See Table 45).

TABLE 45

CONVENTIONAL AND ROOMING-IN CARE
BY INFANT'S COLIC

	Reported Colic			
Groups	Yes	No	No Data	Total
July	8(20.5%)	31(79.5%)	. .	39(100%)
November	8(38.1%)	13(61.9%)	. .	21(100%)
Total	16(26.7%)	44(73.3%)	. .	60(100%)

The infants in the rooming-in care arrangement had nearly 18 percent more colic than the infants under conventional care (38.1% and 20.5%, respectively).

Refusing food, constipation and "other" were the only indicators which showed the rooming-in infants (November births) to have less problems than infants under conventional care. (See Tables 46, 47 and 48).

TABLE 46

CONVENTIONAL AND ROOMING-IN CARE
BY INFANT'S REFUSING FOOD

	Reported Refusing Food			
Groups	Yes	No	No Data	Total
July	2(5.1%)	37(94.9%)	. .	39(100%)
November	. .	20(95.2%)	1(4.8%)	21(100%)
Total	2(3.3%)	57(95.0%)	1(1.7%)	60(100%)

TABLE 47

CONVENTIONAL AND ROOMING-IN CARE
BY INFANT'S COMSTIPATION

	Reported Constipation			
Groups	Yes	No	No Data	Total
July	7(17.9%)	32(82.1%)	. .	39(100%)
November	1(4.8%)	18(85.7%)	2(9.5%)	21(100%)
Total	8(11.7%)	50(85.0%)	2(3.3%)	60(100%)

TABLE 48

CONVENTIONAL AND ROOMING-IN CARE
BY OTHER PROBLEMS

	Reported Problems			
Groups	Yes	No	No Data	Total
July	7(17.9%)	32(32.1%)	. .	39(100%)
November	. .	19(90.5%)	2(9.5%)	21(100%)
Total	7(11.7%)	51(85.0%)	2(3.3%)	60(100%)

These groups were compared on an additional indicator of the infant's adjustment. Taken as being representative of the general care features of their respective programs, the control group and the experimental group were compared on the parents opinions of the infant's adjustment to the home. (See Table 49).

Two-thirds (66.7%) of the experimental group reported an excellant adjustment for the infant, compared with 56.4 percent of the control group. Also, none of the parents in the rooming-in group (experimental), reported anything but "good" or "excellent", while 12.8 percent of the control group reported a "fair" adjustment for the infant. This was in the expected direction.

TABLE 49

CONVENTIONAL AND ROOMING-IN CARE BY PARENT'S OPINION OF INFANT'S ADJUSTMENT

	Reported Opinion					
Groups	Excellent	Good	Fair	Poor	NoData	Total
July	22(56.4%)	12(30.8%)	5(12.8%)	. .	. .	39(100%)
November	14(66.7%)	7(33.3%)	. .	. .	. .	21(100%)
Total	36(60.0%)	19(31.7%)	5(8.3%)	. .	. .	60(100%)

$X^2 = 1.101$; P, n. s.

As measured by the infant's health items, little change in the infant's post-hospital adjustment was brought about by the institution of a rooming-in program. On the other hand, assessment by the parents' opinion of the infants' adjustment to the home indicated a higher degree of post-hospital adjustment for the infants participating in the rooming-in program.

Adjustment between parents

Indicators of the post-hospital adjustment between the parents included degrees of irritability and tension (previously discussed under adjustment of parents to the infant) and the mother's anxiety about her future relationship with her husband. The same control and experimental groups were used to differentiate rooming-in care phases.

When compared on irritability, the group in which the father had been allowed in the room with the infant reported less irritability than those in which the father was not allowed in the room. (See Tables 50 and 51).

TABLE 50

FATHER IN ROOM WITH INFANT BY
FATHER'S IRRITABILITY

Response	Groups: Not Present	Present	No Data	Total
Very Much	. .	. .	. .	. .
Moderate	3(8.1%)	2(3.2%)	. .	5(5.0%)
Slight	11(29.7%)	12(19.4%)	1(100%)	24(24.0%)
None	22(59.5%)	48(77.4%)	. .	70(70.0%)
No Data	1(2.7%)	. .	. .	1(1.0%)
Total	37(100%0	62(100%)	1(100%)	100(100%)

TABLE 51

FATHER IN ROOM WITH INFANT BY
MOTHER'S IRRITABILITY

Response	Groups: Not Present	Present	No Data	Total
Very Much	2(5.4%)	2(3.2%)	. .	4(4.0%)
Moderate	10(27.0%)	11(17.7%)	. .	21(21.0%)
Slight	17(46.0%)	33(53.2%)	1(100%)	51(51.0%)
None	8(21.0%)	16(25.8%)	. .	24(24.0%)
No Data	. .	. .	. .	. .
Total	37(100%)	62(100%)	1(100%)	100(100%)

Although only 4.2 percent more of the mothers in the experimental group than those in the control group were not irritable, the distributions of the control group were higher than those for the experimental group for responses of "very much" and "moderate."

Tension between the parents was also less for the experimental group (See Table 52). Again, the difference between the two groups on a no tension at all response is small, but 2.7 percent of the control group reported "very

much" tension, while none of the experimental group were in this category.

TABLE 52

FATHER IN ROOM WITH INFANT BY
TENSION BETWEEN PARENTS

	Groups			
Response	Not Present	Present	No Data	Total
Very Much	1(2.7%)	. .	. .	1(1.0%)
Somewhat	10(27.0%)	18(29.0%)	1(100%)	29(29.0%)
None	26(70.3%)	44(71.0%)	. .	70(70.0%)
No Data	. .	. .	. .	. .
Total	37(100%)	62(100%)	1(100%)	100(100%)

The two groups were similar in their responses to the question dealing with the mother's anxiety about her future relationship with her husband. Percentage distributions on this indicator were much the same. (See Table 53).

TABLE 53

FATHER IN ROOM BY MOTHER'S ANXIETY
ABOUT RELATIONSHIP WITH HUSBAND

	Groups			
Response	Not Present	Present	No Data	Total
Very Much	1(1.7%)	1(2.7%)	. .	3(3.)%)
Somewhat	9(15.1%)	4(10.7%)	. .	13(13.0%)
None	52(83.2%)	32(85.7%)	1(100%)	84(84.0%)
No Data	. .	. .	. .	. .
Total	62(100%)	37(100%)	1(100%)	100(100%)

As mentioned previously, the use of feeding arrangements to distinguish between control and experimental groups, was done primarily for

comparison of the infant's post-hospital adjustment. Comparing these groups on the indicator of the post-hospital adjustment between the parents did yield some differences.

When compared on tension levels (see Table 6) it was found that the experimental group (demand feeding) reported more tension than the control group (scheduled feeding). While this may not be indicative of a decrease in the post-hospital adjustment between the parents, it may be that demand feeding causes more friction between parents. This would probably be due to the greater demand on the parent's time when the infant has no fixed feeding schedule.

When the groups were differentiated by having received infant care instructions, responses on the father's degree or irritability were similar for both groups (see Table 9). The experimental group had a greater percentage of responses indicating no irritability at all, with 72.8 percent for the experimental group and 60.9 percent for the control group. On the comparison of mothers' irritability less difference between groups was found (see Table 10).

There was 71.7 percent absence of tension reported by the experimental group (instructions given), compared with 63.2 percent for the control group (no instructions). Although the difference was small, it was in the expected direction (see Table 11).

Anxiety about future relationships with husbands was nearly the same for both groups (see Table 54). None of the experimental group (instructions given) reported "very much" anxiety, while the control group reported 1.8 percent "very much" anxiety. The reported absence of anxiety was much the same for both groups; 87.7 percent for the control group and 87.2 percent for the experimental group.

TABLE 54

INSTRUCTIONS IN INFANT CARE BY MOTHER'S ANXIETY ABOUT FUTURE RELATIONSHIP WITH HUSBAND

	Groups		
Respones	No Instructions	Instructions	Total
Very Much	1(1.8%)	. .	1(0.8%)
Somewhat	6(10.5%)	8(12.8%)	14(10.7%)
None	50(87.7%)	66(87.2%)	116(88.5%)
No Data	. .	. .	. .
Total	57(100%)	74(100%)	131(100%)

When the control and experimental groups were determined by the month of birth, there was significantly less irritability for the mothers in the control group than for their counterparts in the experimental group (see Table 15).

There was less tension in the experimental group than in the control group; 66.7 percent and 59.0 percent "no tension," respectively (see Table 12). There was less anxiety about their future relationship with their husbands reported by the mothers in the control group (July births) than the mothers in the experimental group (November births); with 79.5 percent and 76.2 percent "no anxiety," respectively (see Table 55).

TABLE 55

CONVENTIONAL AND ROOMING-IN CARE BY MOTHER'S ANXIETY ABOUT RELATIONSHIP WITH HUSBAND

	Reported Anxiety				
Groups	Very Much	Somewhat	None	No Data	Total
July	1(2.6%)	7(17.9%)	31(79.5%)	. .	39(100%)
November	. .	5(23.8%)	16(76.2%)	. .	21(100%)
Total	1(1.7%)	12(20.0%)	47(78.3%)	. .	60(100%)

Of the four indicators used, mother's irritability, father's irritability, tension between parents and the mother's anxiety about the couple's future relationship, on only one, tension between parents, was there any over-all indications of a better post-hospital adjustment for those parents who took part in all at the rooming-in program elements. The other indicators showed no consistant distributional direction.

Care in the Hospital

In addition to the comparisons disussed above, the rooming-in mothers were compared with the conventional care mothers on questions relating to the care they had received in the hospital. The control group (July births) was compared with the experimental group (November births) on their anxiety about the type of care their infants had received, feelings of hopelessness, degree of postpartum depression, satisfaction with the amount of time spent with their infants and possible criticism of the care received in the hospital.

When compared on their possible anxiety about the care given their infants, the responses of the two groups were very much alike. (See Table 56).

TABLE 56

CONVENTIONAL AND ROOMING-IN CARE BY MOTHER'S ANXIETY ABOUT INFANT'S CARE

	Reported Anxiety				
Groups	Very Much	Somewhat	None	No Data	Total
Conventional	4(10.3%)	11(28.2%)	24(61.5%)	. .	39(100%)
Rooming-In	3(14.3%)	5(23.8%)	13(61.9%)	. .	21(100%)
Total	7(11.6%)	16(26.7%)	37(61.7%)	. .	60(100%)

X^2 = .062; P, n. s.

While nearly the same in reported absence of anxiety (61.5%, and 61.9%), there was a slightly higher response of "very much" anxiety for the experimental group. The control group (conventional care) reported that 10.3 percent had very much anxiety, while the experimental group reported 14.3 percent.

A significant difference between the groups was found when they were compared on the mother's degree of feelings of hopelessness. (See Table 57).

TABLE 57

CONVENTIONAL AND ROOMING-IN CARE BY MOTHER'S HOPELESSNESS

	Reported Hopelessness		
	Groups		
Responses	Conventional	Rooming-In	Total
Very Much	2(5.1%)	3(14.3%)	5(8.3%)
Somewhat	13(33.3%)	10(47.6%)	23(37.5%)
None	24(61.5%)	8(38.1%)	32(54.2%)
No Data	. .	. .	. .
Total	39(100%)	21(100%)	60(100%)

$X^2 = 4.003$; $P < .05$

The mothers under conventional care had significantly less feelings of hopelessness than the mothers who participated in the rooming-in arrangement.

The control group mothers also had a lower degree of postpartum depression than the mothers in the experimental group, but the differences were not significant. (See Table 58).

TABLE 58

CONVENTIONAL AND ROOMING-IN CARE BY MOTHER'S POSTPARTUM DEPRESSION

Reported Depression	Groups		
Responses	Conventional	Rooming-In	Total
Very Much	2(5.1%)	2(9.5%)	4(6.7%)
Moderate	3(7.7%)	4(19.0%)	7(11.6%)
Slight	13(33.3%)	8(38.1%)	21(34.2%)
None	21(53.8%)	7(33.3%)	28(46.5%)
No Data	. .	. .	. .
Total	39(100%)	21(100%)	60(100%)

One third (33.3%) of the experimental group (rooming-in care) reported no depression at all, as compared with 53.8 percent for the control group (conventional care). There were correspondingly higher percentages for the experimental group in each affirmative category.

Contrary to expectations, the rooming-in mothers reported less satisfaction with the amount of time spent with their infants than did the mothers under conventional care. (See Table 59).

TABLE 59

CONVENTIONAL AND ROOMING-IN CARE BY MOTHER'S SATISFACTION WITH INFANT CONTACT

	Reported Satisfaction			
Groups	Yes	No	No Data	Total
Conventional	35(89.7%)	4(10.3%)	. .	39(100%)
Rooming-In	16(76.2%)	5(23.8%)	. .	21(100%)
Total	51(85.0%)	9(15.0%)	. .	60(100%)

$X^2 = 1.097$; P, n. s.

The direction of this distribution may be misleading in view of the fact that the rooming-in mothers could control the amount of time the infant was in the mother's room and the conventional care mothers could not. The greater proportion of the mothers in the experimental group who expressed disatisfaction with the amount of time spent with the infant could be due to the relatively small frequencies used in this comparison. Further support to this possibility is given by the comparison of the criticism of the care received in the hospital. (See Table 60).

TABLE 60

CONVENTIONAL AND ROOMING-IN CARE
BY CRITICISM OF CARE

	Reported Criticism			
Groups	Yes	No	No Data	Total
Conventional	8(20.5%)	31(79.5%)	. .	39(100%)
Rooming-In	1(4.8%)	20(95.2%)	. .	21(100%)
Total	9(15.0%)	51(85.0%)	. .	60(100%)

$X^2 = 6.320$; $P < .02$

Significant at the .02 level, this comparison revealed that the mothers under rooming-in care had less criticism of the care they received than the mothers under conventional care. The typical responses to the question asking for specification of criticism were concerned with hospital policy, such as not letting the father visit during feeding (prior to allowing father in room with infant) or criticism of the hospital facilities.

From this one might conclude that although the mothers in the rooming-in arrangement were more prone to hoplessness and depression, they were more satisfied with the care facilities during the hospitalization period. It should be noted, however, that the sample size was not large, and the rooming-in program had not been in operation for any great length of time.

CHAPTER IV

SUMMARY AND CONCLUSIONS

This study was designed to test certain assumptions underlying a change in maternity care programs in many modern hospitals. The Deaconess hospital in Grand Forks, North Dakota recently underwent such a change, making possible a comparison of types of maternity care in terms of their effects on the family's post-hospital adjustment.

The background information for the various groups compared was, in all but one instance, similar on controllable. When the July maternity cases were compared with those occurring in November, it was found that the conventional care mothers, the July cases, had more assistance with the care of their infants than the rooming-in mothers, those delivering in November. Although not statistically significant, this difference may have introduced a bias. The small frequencies which would have resulted, however, prohibited any control for this possibility.

Three significant differences were found. Of these three, two showed the opposite of the expected results. Only one statistically significant difference, that on criticism of the care received in the hospital, indicated that the rooming-in care better satisfed the family's needs.

Those differences, although not statistically significant, which did show some direction were not in any consistent pattern. In all but a few instances, the post-hospital adjustment indicators were not found to agree from one comparison to the next. This agreement, or rather lack of agreement, will be discussed within the individual adjustment areas.

Adjustment of the Parents to the Infant

Comparisons made on that phase of the program when fathers were allowed in the room with the infant showed a higher degree of adjustment for the experimental group on all indicators except that indicating mother's nervousness. However, none of the differences brought to light by this comparison were statistically significant, and the father's prior contact with the infant did not reduce the mother's nervousness.

Tension between the parents was reduced by the rooming-in program feature in all but one of the comparisons made. But, again, no statistical significance was found.

Eighteen individual comparisons were used to measure the parent's post-hospital adjustment to the infant. Six of these showed a higher adjustment level for the parents who participated in the various rooming-in features. Five comparisons, one of them statistically significant, showed a higher adjustment level for the parents involved in the conventional care facilities. Seven comparisons showed little or no difference between groups of parents.

Thus, no general indication of the advantage or disadvantage of rooming-in care for the parent's post-hospital adjustment to the infant was found.

Adjustment of Infants to Parents

On only two of the eight indicators was there evidence indicating the infants of the parents who took part in rooming-in facilities to have a higher degree of post-hospital adjustment than the conventional care group. On the other hand, for every comparison, the infants in the experimental group suffered less from constipation and "other" than the infants in the

control group.

On two other indicators, diarrhea and problems finding the right formula, the conventional care infants fared better than those in the rooming-in program for each comparison. On the remaining four indicators no important differences between individual comparisons were revealed.

Taking each comparison separately, only for the groups differentiated by allowing the father to be present in the mother's room with the infant did the experimental group show a general higher adjustment for the infants. Diarrhea, diaper rash and formula finding were, however, exceptions. Comparisons on the remaining items revealed general similarities between groups.

There was a total of thirty-two individual comparisons made on the adjustment indicators of the infants. Twelve comparisons showed a higher degree of post-hospital adjustment for infants of parents who took part in various elements of rooming-in care. Fifteen comparisons resulted in the opposite effect, i.e. distributions opposite of those expected. Five individual comparisons showed little, if any, difference between conventional care and rooming-in care groups.

No clear-cut findings were made in this area of the post-hospital adjustment of the family.

Adjustment between Parents.

None of the four indicators of the post-hospital adjustment between the parents were consistently favorable or unfavorable for the rooming-in features. Only one statistically significant difference was found, and this showed the mothers under conventional care to be less irritable than those who received rooming-in care.

On all but one of the comparisons between groups, that of the father's being allowed in the infant's presence, findings were ambiguous. The father's contact with the infant did lessen post-hospital tension and irritability for the parents.

Fifteen individual comparisons were made. Five showed a higher degree of post-hospital adjustment between those parents who participated in the various rooming-in details, five showed a higher post-hospital adjustment between parents under conventional care procedures, and five showed little or no difference. Again, no clear-cut findings were made.

Care in the Hospital

The comparison between the group who participated in the conventional care program in July and those who experienced the rooming-in care in November revealed two statistically significant differences, ie, the mothers participating in the rooming-in program had a higher degree of feelings of hopelessness, but less criticism of the care they received.

Of the five criteria used in this comparison, one showed no difference between the programs and three exhibited more favorable responses for the mothers receiving conventional care and treatment. Again, the findings were ambiguous.

In conclusion, the ambiguity of the findings precluded any judgement of this particular rooming-in program at this time. Only one set of comparisons, that dealing with the fathers contact with the infant in the hospital showed any promise of improving the degree of the family's post-hospital adjustment.

It should be noted that the rooming-in facilities examined in

this study were part of one particular program of maternity care. The uniqueness of each hospital, and particularly, each program of maternity care disallows generalizations about rooming-in versus conventional care in their broad range of applications.

Careful note should also be taken of the fact that, in this study, it was necessary to work with a relatively small sample, which was participating in the maternity care arrangements during a gradual process of change. If the institution of the rooming-in program had accured over a shorter period, each type of care could have been sampled without introducing a possible error due to the time involved between a simple "before and after" test. Results may have been more conclusive if this had been possible.

The need for further research in the area is apparent. A great number of studies of various types of rooming-in programs are necessary before any general assessment of this new (or perhaps renewed) type of maternity care can be made. Considerable opportunities for research will be given by the increasing number of hospitals subscribing to the rooming-in philosophy.

APPENDIX A

QUESTIONNAIRE

UNIVERSITY OF NORTH DAKOTA

MATERNITY RESEARCH

December 30, 1964

Dear Mrs:

During the past few months, the Deaconess Hospital in Grand Forks has gradually incorporated a new approach to maternity care. Most of the major changes have now been completed. An evaluation of the new program is being conducted by a group of researchers at the University of North Dakota.

Because you, knowingly or not, participated in this change-over, you have been selected to participate in this evaluation. It is our hope that with your assistance, the evaluation of this program will be of great benefit to future changes in maternity care.

Please fill out the enclosed questionnaire and return it in the self-addressed, stamped envelope that we have provided. It is NOT necessary that you place your name on this questionnaire if you wish to remain anonymous.

Thank you,

John P. Collette
Dept. of Sociology
University of North Dakota

UNIVERSITY OF NORTH DAKOTA
GRAND FORKS

DEPARTMENT OF SOCIOLOGY
MATERNITY CARE RESEARCH

FALL, 1964
QUESTIONNAIRE #___

PART I

1. How many children have you and your spouse?_____List ages_____

2. Your husband's occupation is _____.

3. Husband's age_____, Your age _____.

4. Sex of new infant. (Male, Female)

5. Birth weight of new infant_____lb. _____oz.

6. Were there complications during birth? (Yes, No)

   Specify:_____

7. Did you work outside your home during the first month after bringing your baby home? (Yes, No) If so, how many hours per week?_____

8. Did you have assistance other than your husband, in caring for your new baby during the first month after bringing the baby home? (Yes, No) If so, how many hours per week?_____

9. What type of dwelling do you live in? (Apartment,private house, etc.)

10. Did the new infant have a separate room? (Yes, No)

11. Did you consider your housing adequate for the new infant? (Yes, No)

    If not, specify:_____

PART II

1. During the first month the baby was home, did you have any problems such as:

   a. vomiting (Yes, No)

   b. colic (Yes, No)

   c. refusing to take food (Yes, No)

1. (cont.)

   d. finding the right formula (Yes, No)

   e. diaper rash (Yes, No)

   f. diarrhea (Yes, No)

   g. constipation (Yes, No)

   h. other (specify)_____

2. Did you have any problem with the baby waking irregularly during the first month home? (Often, occasionally, seldom, never)

3. How often did your husband assist in:

   a. feeding the baby (Often, occasionally, seldom, never)

   b. changing the baby (Often, occasionally, seldom, never)

   c. bathing the baby (Often, occasionally, seldom, never)

   d. feeding the baby at night (Often, occasionally, seldom, never)

4. How often did your husband care for the child alone during the first month home? (Often, occasionally, seldom, never)

5. During this time, the father was (very relaxed, relaxed, nervous, very nervous) while handling the baby.

6. Were you (very relaxed, relaxed, nervous, very nervous) when handling the baby during the first month?

7. Did you feel depressed upon returning home from the hospital? (very depressed, moderately depressed, slightly depressed, not depressed)

8. Did you experience any feelings of hopelessness during the first weeks after the birth of your baby? (very much, somewhat, not at all)

9. While in the hospital, did you experience anxiety about the care your infant received? (very much, somewhat, not at all)

10. Did you have any anxiety at this time, about possible changes in

10. (cont.)

your relationship with your husband? (very much, somewhat, not at all)

11. To what degree were you irritable during the first month after the birth of your baby? (very irritable, moderately irritable, slightly irritable, not irritable)

12. To what degree was your husband irritable during this time? (very irritable, moderately irritable, slightly irritable, not irritable)

13. Did the extra work involved in caring for the new baby at this time create more tension between you and your husband? (very much, somewhat, not at all)

PART III

1. Have you had any training in child care? (Yes, No) If so, what type? (specify)_____

2. Has your husband had any training in child care? (Yes, No) If so, what type (specify)_____

3. How many brothers and sisters does your husband have?_____

4. How many brothers and sisters do you have? _____

5. Was the new infant a planned child? (Yes, No)

6. Was the father present in the delivery room when the baby was born? (Yes, No)

7. Did the father visit the mother while the baby was in the room? (Yes, No)

8. Did either of the parents take part in the pre-natal classes held by the hospital? (mother, father, both, neither)

9. Was the father present during any instructions concerning the baby's care, such as bathing instructions? (Yes, No)

4

PART IV

1. Were you satisfied with the amount of time you spent with your baby while in the hospital? (Yes, No)
2. Was your baby breast-fed? (Yes, No)
3. What was the reason for your being in the Deaconess Hospital rather than some other hospital?

4. Do you have any criticisms of the care you received in the hospital? (Yes, No) If so, what are they?

5. In your opinion, how well did the baby adjust to your home after being taken from the hospital? (excellent, good, fiar, poor)
6. Did the baby have any specific difficulties during the first month after being taken home from the hospital? (Yes, No) If so, what were they?

APPENDIX B

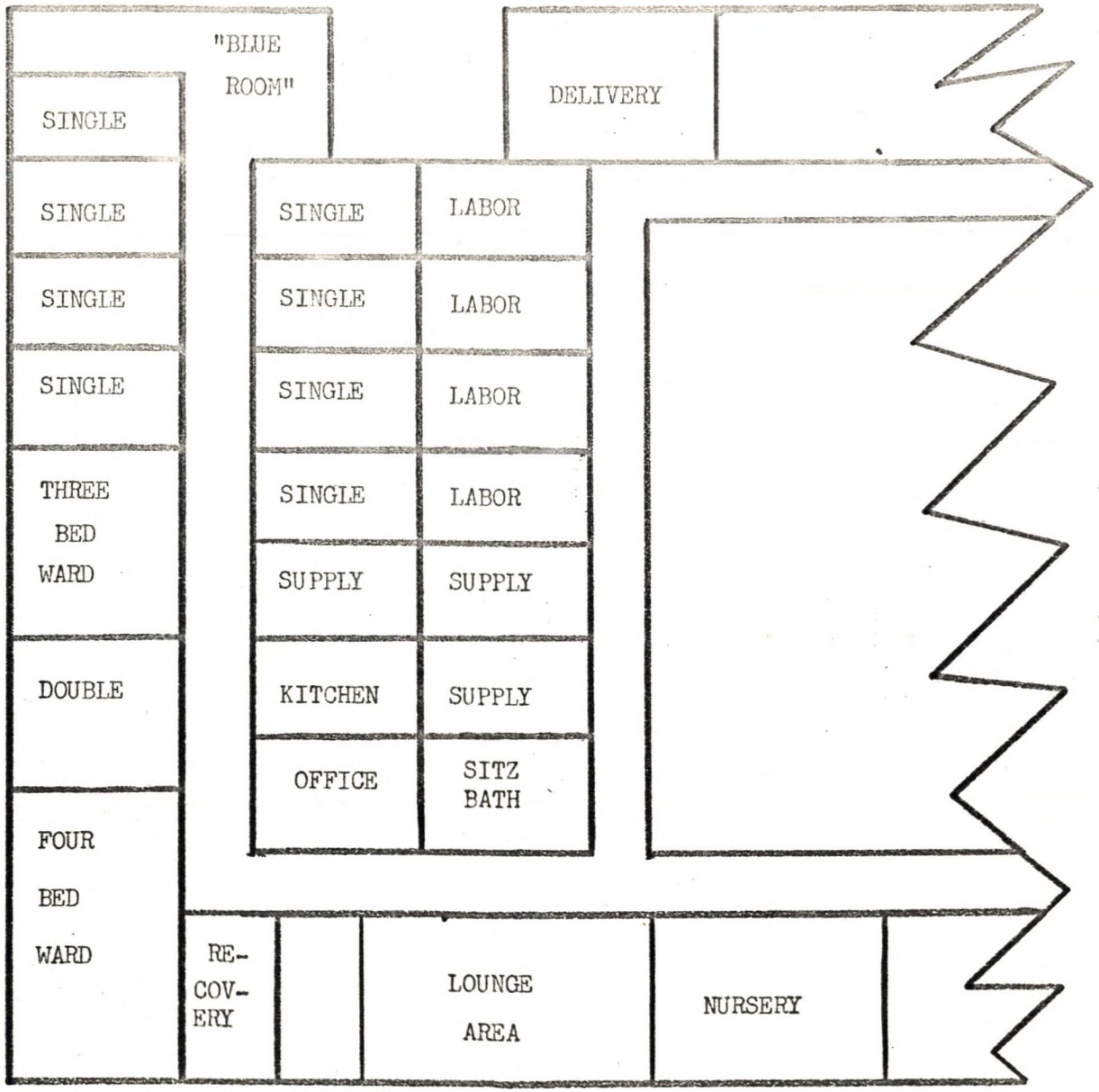
MATERNITY UNIT

FLOOR PLAN

APPENDIX B

MATERNITY UNIT

FLOOR PLAN


"BLUE ROOM"
DELIVERY
SINGLE
SINGLE
SINGLE
SINGLE
THREE BED WARD
DOUBLE
FOUR BED WARD
SINGLE
LABOR
SINGLE
LABOR
SINGLE
LABOR
SINGLE
LABOR
SUPPLY
SUPPLY
KITCHEN
SUPPLY
OFFICE
SITZ BATH
RE-COV-ERY
LOUNGE AREA
NURSERY

APPENDIX C

TABLES

TABLE 61

BACKGROUND INFORMATION BY WHETHER OR NOT FATHER WAS PRESENT IN ROOM WITH INFANT *

A. SEX OF INFANT

Groups	Female	Male	No Data	Totals
I	20 (47.6%)	22 (52.4%)	. .	42 (100%)
II	48 (54.6%)	40 (45.4%)	. .	88 (100%)
No Data	1 (100%)	. .	. .	1 (100%)
Totals	69 (52.6%)	62 (47.4%)	. .	131 (100%)

B. BIRTH COMPLICATIONS

Groups	Yes	No	No Data	Total
I	1 (2.4%)	41 (97.6%)	. .	42 (100%)
II	10 (11.4%)	78 (88.6%)	. .	88 (100%)
No Data	. .	1 (100%)	. .	1 (100%)
Totals	11 (8.4%)	120 (91.6%)	. .	131 (100%)

C. MOTHER WORKING

Groups	Yes	No	No Data	Total
I	1 (2.4%)	41 (97.6%)	. .	42 (100%)
II	1 (1.1%)	87 (98.9%)	. .	88 (100%)
No Data	. .	1 (100%)	. .	1 (100%)
Totals	2 (1.5%)	129 (98.5%)	. .	131 (100%)

* For Group I, the father was not present in the room with the infant. For Group II, the father was present.

D. ASSISTANCE WITH INFANT

Groups	Yes	No	No Data	Total
I	10 (23.8%)	32 (76.2%)	. .	42 (100%)
II	21 (23.9%)	67 (76.1%)	. .	88 (100%)
No Data	. .	1 (100%)	. .	1 (100%)
Totals	31 (23.7%)	100 (76.3%)	. .	131 (100%)

E. PLANNED CHILD

Groups	Yes	No	No Data	Total
I	7 (16.7%)	35 (83.3%)	. .	42 (100%)
II	26 (29.5%)	62 (70.5%)	. .	88 (100%)
No Data	. .	1 (100%)	. .	1 (100%)
Totals	33 (25.2%)	98 (74.8%)	. .	131 (100%)

F. BREAST FEEDING

Groups	Breast Fed	Bottle Fed	No Data	Total
I	11 (26.2%)	31 (73.9%)	. .	42 (100%)
II	28 (31.8%)	60 (68.2%)	. .	88 (100%)
No Data	. .	1 (100%)	. .	1 (100%)
Totals	39 (29.8%)	92 (70.2%)	. .	131 (100%)

G. FATHER'S OCCUPATION

Groups	Labor	White Collar	Military or Student	Professional	No Date	Total
I	21 (50.0%)	14 (33.3%)	4 (9.5%)	1 (2.4%)	2 (4.8%)	42 (100%)
II	45 (51.2%)	26 (29.5%)	11 (12.5%)	6 (6.8%)	. .	88 (100%)
No Data	1 (100%)	. .	. .	. .	. .	1 (100%)
Totals	67 (51.2%)	40 (30.6%)	15 (11.5%)	7 (5.3%)	2 (1.5%)	131 (100%)

H. BIRTH WEIGHT OF INFANT (IN POUNDS)

Groups	Under 5	5	6	7	8	9	10 and over	No Data	Total
I	. .	2 (4.8%)	6 (14.3%)	18 (42.8%)	10 (23.8%)	5 (11.9%)	1 (2.4%)	. .	42 (100%)
II	2 (2.3%)	6 (6.8%)	20 (22.7%)	33 (37.5%)	21 (23.9%)	4 (4.5%)	. .	2 (2.3%)	88 (100%)
No Data	. .	. .	1 (100%)	. .	. .	. .	. .	. .	1 (100%)
Totals	2 (1.5%)	8 (6.1%)	27 (20.7%)	51 (40.0%)	31 (23.7%)	9 (6.9%)	1 (0.8%)	2 (1.5%)	131 (100%)

I. MOTHER'S AGE

Groups	Under 20	20-29	30-39	40 and over	No Data	Total
I	4 (9.5%)	29 (69.1%)	9 (21.4%)	. .	. .	42 (100%)
II	10 (11.4%)	55 (62.5%)	23 (26.1%)	. .	. .	88 (100%)
No Data	. .	1 (100%)	. .	. .	. .	1 (100%)
Totals	14 (10.0%)	85 (65.6%)	32 (24.4%)	. .	. .	131 (100%)

J. FATHER'S AGE

Groups	Under 20	20-29	30-39	40 and over	No Data	Total
I	3 (7.1%)	31 (73.8%)	5 (11.9%)	3 (7.1%)	. .	42 (100%)
II	2 (2.3%)	44 (50.0%)	29 (32.9%)	13 (14.8%)	. .	88 (100%)
No Data	. .	1 (100%)	. .	. .	. .	1 (100%)
Totals	5 (3.8%)	76 (58.1%)	34 (26.0%)	16 (12.2%)	. .	131 (100%)

TABLE 62

BACKGROUND INFORMATION BY WHETHER OR NOT FATHER WAS PRESENT IN ROOM WITH INFANT (CONTROLLED ON NUMBER OF CHILDREN AND SEPARATE ROOM IN HOME FOR INFANT) *

A. SEX OF INFANT

Groups	Female	Male	No Data	Total
I	18 (48.7%)	19 (51.3%)	. .	37 (100%)
II	30 (48.4%)	32 (51.6%)	. .	62 (100%)
No Data	1 (100%)	. .	. .	1 (100%)
Totals	49 (49.0%)	51 (51.0%)	. .	100 (100%)

B. BIRTH COMPLICATIONS

Groups	Yes	No	No Data	Total
I	1 (2.7%)	36 (97.3%)	. .	37 (100%)
II	5 (8.1%)	57 (91.9%)	. .	62 (100%)
No Data	. .	1 (100%)	. .	1 (100%)
Totals	6 (6.0%)	94 (94.0%)	. .	100 (100%)

C. MOTHER WORKING

Groups	Yes	No	No Data	Total
I	. .	37 (100%)	. .	37 (100%)
II	1 (1.6%)	61 (98.4%)	. .	62 (100%)
No Data	. .	1 (100%)	. .	1 (100%)
Totals	1 (1.6%)	99 (99%)	. .	100 (100%)

* For Group I, the father was not present in the room with the infant. For Group II, the father was present.

D. ASSISTANCE WITH INFANT

Groups	Yes	No	No Data	Total
I	9 (24.3%)	28 (75.7%)	. .	37 (100%)
II	10 (16.1%)	52 (83.2%)	. .	62 (100%)
No Data	. .	1 (100%)	. .	1 (100%)
Totals	19 (19.0%)	81 (81.0%)	. .	100 (100%)

E. PLANNED CHILD

Groups	Yes	No	No Data	Total
I	5 (13.5%)	32 (86.5%)	. .	37 (100%)
II	17 (27.4%)	45 (72.6%)	. .	62 (100%)
No Data	. .	1 (100%)	. .	1 (100%)
Totals	22 (22%)	78 (78%)	. .	100 (100%)

F. BREAST FEEDING

Groups	Breast Fed	Bottle Fed	No Data	Total
I	10 (27.0%)	27 (73.0%)	. .	37 (100%)
II	18 (29.0%)	44 (71.0%)	. .	62 (100%)
No Data	. .	1 (100%)	. .	1 (100%)
Totals	28 (28.0%)	72 (72.0%)	. .	100 (100%)

G. FATHER'S OCCUPATION

Groups	Labor	White Collar	Military or Student	Professional	No Data	Total
I	20 (54.0%)	11 (29.9%)	3 (8.2%)	1 (2.7%)	2 (5.5%)	37 (100%)
II	35 (56.4%)	19 (30.6%)	8 (12.9%)	. .	. .	62 (100%)
No Data	1 (100%)	. .	. .	. .	. .	1 (100%)
Totals	56 (56.0%)	30 (30.0%)	11 (11.0%)	1 (1.0%)	2 (2.0%)	100 (100%)

H. BIRTH WEIGHT OF INFANT (IN POUNDS)

Groups	Under 5	5	6	7	8	9	10 and over	No Data	Total
I	. .	2 (5.4%)	4 (10.8%)	16 (43.2%)	10 (27.0%)	4 (10.8%)	1 (2.7%)	. .	37 (100%)
II	1 (1.6%)	3 (4.8%)	13 (21.0%)	24 (38.7%)	19 (30.6%)	1 (1.6%)	. .	1 (1.6%)	62 (100%)
No Data	. .	. .	1 (100%)	. .	. .	. .	. .	. .	1 (100%)
Totals	1 (1.0%)	5 (5.0%)	18 (18.0%)	40 (40.0%)	29 (29.0%)	5 (5.0%)	1 (1.0%)	1 (1.0%)	100 (100%)

I MOTHER'S AGE

Groups	Under 20	20-29	30-39	40 and over	No Data	Total
I	2 (5.4%)	28 (75.7%)	4 (10.8%)	3 (8.1%)	. .	37 (100%)
II	2 (3.2%)	36 (58.1%)	22 (35.5%)	2 (3.2%)	. .	62 (100%)
No Data	. .	1 (100%)	. .	. .	. .	1 (100%)
Totals	4 (4.0%)	65 (65.0%)	26 (26.0%)	5 (5.0%)	. .	100 (100%)

J. FATHER'S AGE

Groups	Under 20	20-29	30-39	40 and over	No Data	Total
I	2 (5.4%)	28 (75.7%)	4 (10.8%)	3 (8.1%)	. .	37 (100%)
II	2 (3.2%)	36 (58.5%)	22 (35.5%)	2 (3.2%)	. .	62 (100%)
No Data	. .	1 (100%)	. .	. .	. .	1 (100%)
Totals	4 (4.0%)	65 (65.0%)	26 (26.0%)	5 (5.0%)	. .	100 (100%)

TABLE 63

BACKGROUND INFORMATION BY TYPE FEEDING ARRANGEMENT *

A. SEX OF INFANT

Groups	Female	Male	No Data	Total
I	21 (53.8%)	18 (46.2%)	. .	39 (100%)
II	48 (52.2%)	44 (47.8%)	. .	92 (100%)
Totals	69 (52.7%)	62 (47.3)	. .	131 (100%)

B. BIRTH COMPLICATIONS

Groups	Yes	No	No Data	Total
I	6 (15.4%)	33 (84.6%)	. .	39 (100%)
II	5 (5.4%)	87 (94.6%)	. .	92 (100%)
Totals	11 (8.4%)	120 (91.6%)	1 .	131 (100%)

C. MOTHER WORKING

Groups	Yes	No	No Data	Total
I	1 (2.6%)	38 (97.4%)	. .	39 (100%)
II	1 (1.1%)	91 (98.9%)	. .	92 (100%)
Totals	2 (1.5%)	129 (98.5%)	. .	131 (100%)

* For Group I, the Infant was on scheduled feeding. For Group II, the Infant was on demand feeding.

D. ASSISTANCE WITH INFANT

Groups	Yes	No	No Data	Total
I	13 (33.3%)	26 (66.7%)	. .	39 (100%)
II	18 (19.5%)	74 (80.5%)	. .	92 (100%)
Totals	31 (23.7%)	100 (76.3%)	. .	131 (100%)

E. PLANNED CHILD

Groups	Yes	No	No Data	Total
I	12 (30.8%)	27 (69.2%)	. .	39 (100%)
II	21 (22.8%)	71 (77.2%)	. .	92 (100%)
Totals	33 (25.2%)	98 (74.8%)	. .	131 (100%)

F. BREAST FEEDING

Groups	Breast Fed	Bottle Fed	No Data	Total
I	9 (23.1%)	30 (76.9%)	. .	39 (100%)
II	30 (32.6%)	62 (67.4%)	. .	92 (100%)
Totals	39 (29.8%)	92 (70.2%)	. .	131 (100%)

G. SEPARATE ROOM FOR INFANT

Groups	Yes	No	No Data	Total
I	9 (23.1%)	30 (76.9%)	. .	39 (100%)
II	21 (22.8%)	71 (77.2%)	. .	92 (100%)
Totals	30 (22.9%)	101 (77.1%)	. .	131 (100%)

H. NUMBER OF CHILDREN

Groups	PrimaPara	MultiPara	No Data	Total
I	12 (30.8%)	27 (69.2%)	. .	39 (100%)
II	19 (20.6%)	73 (79.4%)	. .	92 (100%)
Totals	31 (23.7%)	100 (76.3%)	. .	131 (100%)

I. FATHER'S OCCUPATION

Groups	Labor	White Collar	Military or Student	Professional	No Data	Total
I	16 (41.0%)	9 (23.1%)	8 (20.6%)	6 (15.4%)	. .	39 (100%)
II	41 (44.6%)	31 (34.1%)	7 (7.6%)	1 (1.1%)	2 (2.1%)	92 (100%)
Totals	57 (45.0%)	40 (30.5%)	15 (11.5%)	7 (5.4%)	2 (1.5%)	131 (100%)

J. BIRTH WEIGHT OF INFANT (IN POUNDS)

Groups	Under 5	5	6	7	8	9	10 and over	No Data	Total
I	. .	2 (5.1%)	5 (12.8%)	16 (41.0%)	11 (28.2%)	4 (10.3%)	1 (2.5%)	. .	39 (100%)
II	2 (2.1%)	6 (6.5%)	22 (23.9%)	35 (38.1%)	20 (21.7%)	5 (5.4%)	1 (1.1%)	1 (1.1%)	92 (100%)
Totals	2 (1.5%)	8 (6.1%)	27 (20.6%)	51 (39.0%)	31 (23.7%)	9 (6.8%)	2 (1.5%)	1 (0.3%)	131 (100%)

K. MOTHER'S AGE

Groups	Under 20	20-29	30-39	40 and over	No Data	Total
I	4 (10.3%)	28 (71.8%)	7 (17.9%)	. .	. .	39 (100%)
II	10 (10.9%)	57 (62.0%)	25 (27.1%)	. .	. .	92 (100%)
Totals	14 (10.7%)	85 (64.9%)	32 (24.4%)	. .	. .	131 (100%)

L. FATHER'S AGE

Groups	Under 20	20-29	30-39	40 and over	No Data	Total
I	1 (2.6%)	26 (66.7%)	6 (15.4%)	6 (15.4%)	. .	39 (100%)
II	4 (4.3%)	50 (54.3%)	28 (30.4%)	10 (10.9%)	. .	92 (100%)
Totals	5 (3.8%)	76 (58.1%)	34 (26.0%)	16 (12.2%)	. .	131 (100%)

TABLE 64

BACKGROUND INFORMATION BY WHETHER OR NOT THE MOTHER RECEIVED INFANT CARE INSTRUCTIONS WHILE IN THE HOSPITAL

A. SEX OF INFANT

Groups	Female	Male	No Data	Total
I	31 (54.4%)	26 (45.6%)	. .	57 (100%)
II	38 (51.4%)	36 (48.6%)	. .	74 (100%)
Totals	69 (52.7%)	62 (47.3%)	. .	131 (100%)

B. BIRTH COMPLICATIONS

Groups	Yes	No	No Data	Total
I	6 (10.5%)	51 (89.5%)	. .	57 (100%)
II	5 (6.8%)	69 (93.2%)	. .	74 (100%)
Totals	11 (8.4%)	120 (91.6%)	. .	131 (100%)

C. MOTHER WORKING

Groups	Yes	No	No Data	Total
I	1 (1.8%)	56 (98.2%)	. .	57 (100%)
II	1 (1.4%)	73 (98.6%)	. .	74 (100%)
Totals	2 (1.5%)	129 (98.5%)	. .	131 (100%)

* For Group I, the Mother did not receive infant care instructions.
For Group II, the Mother did receive instructions.

D. ASSISTANCE WITH INFANT

Groups	Yes	No	No Data	Total
I	16 (28.1%)	41 (71.9%)	. .	57 (100%)
II	15 (20.3%)	59 (79.7%)	. .	74 (100%)
Totals	31 (23.7%)	100 (76.3%)	. .	131 (100%)

E. PLANNED CHILD

Groups	Yes	No	No Data	Total
I	17 (29.8%)	40 (70.2%)	. .	57 (100%)
II	16 (21.6%)	58 (78.4%)	. .	74 (100%)
Totals	33 (25.2%)	98 (74.8%)	. .	131 (100%)

F. BREAST FEEDING

Groups	Breast Fed	Bottle Fed	No Data	Total
I	15 (26.3%)	42 (73.7%)	. .	57 (100%)
II	24 (32.4%)	50 (67.6%)	. .	74 (100%)
Totals	39 (29.8%)	92 (70.2%)	. .	131 (100%)

G. SEPARATE ROOM FOR INFANT

Groups	Yes	No	No Data	Total
I	13 (22.8%)	44 (77.2%)	. .	57 (100%)
II	17 (22.9%)	57 (77.1%)	. .	74 (100%)
Totals	30 (22.9%)	101 (77.1%)	. .	131 (100%)

H. NUMBER OF CHILDREN

Groups	PrimaPara	MultiPara	No Data	Total
I	15 (26.3%)	42 (73.7%)	. .	57 (100%)
II	16 (21.6%)	58 (78.4%)	. .	74 (100%)
Totals	31 (23.7%)	100 (76.3%)	. .	131 (100%)

I. FATHER'S OCCUPATION

Groups	Labor	White Collar	Military or Student	Professional	No Data	Total
I	26 (45.6%)	14 (24.6%)	10 (17.5%)	6 (10.5%)	1 (1.8%)	57 (100%)
II	41 (55.4%)	26 (35.2%)	5 (6.8%)	1 (1.4%)	1 (1.4%)	74 (100%)
Totals	67 (51.2%)	40 (30.6%)	15 (11.5%)	7 (5.3%)	2 (2.1%)	131 (100%)

J. BIRTH WEIGHT OF INFANT (IN POUNDS)

Groups	Under 5	5	6	7	8	9	10 and over	No Data	Total
I	. .	2 (3.6%)	9 (15.8%)	25 (43.8%)	13 (22.8%)	6 (10.5%)	1 (1.7%)	1 (1.7%)	57 (100%)
II	2 (2.7%)	6 (8.1%)	18 (24.3%)	26 (35.1%)	18 (24.3%)	3 (4.1%)	1 (1.4%)	. .	74 (100%)
Totals	2 (1.5%)	8 (6.1%)	27 (20.7%)	51 (39.0%)	31 (23.6%)	9 (6.9%)	2 (1.5%)	1 (0.7%)	131 (100%)

K, MOTHER'S AGE

Groups	Under 20	20-29	30-39	40 and over	No Data	Total
I	1 (1.8%)	39 (68.4%)	11 (19.3%)	6 (10.5%)	. .	57 (100%)
II	4 (5.4%)	37 (50.0%)	23 (31.1%)	10 (13.5%)	. .	74 (100%)
Totals	5 (3.8%)	76 (58.0%)	34 (26.0%)	16 (12.2%)	. .	131 (100%)

L. FATHER'S AGE

Groups	Under 20	20-29	30-39	40 and over	No Data	Total
I	1 (1.8%)	39 (68.4%)	11 (19.3%)	6 (10.5%)	. .	57 (100%)
II	4 (5.4%)	37 (50.0%)	23 (31.1%)	10 (13.5%)	. .	74 (100%)
Totals	5 (3.8%)	76 (58.0%)	34 (26.0%)	16 (12.2%)	. .	131 (100%)

TABLE 65

BACKGROUND QUESTIONS BY
MONTH OF BIRTH *

A. SEX OF INFANT

Groups	Female	Male	No Data	Total
I	21 (53.8%)	18 (46.2%)	. .	39 (100%)
II	10 (47.6%)	11 (52.4%)	. .	21 (100%)
Totals	31 (51.7%)	29 (48.3%)	. .	60 (100%)

B. BIRTH COMPLICATIONS

Groups	Yes	No	No Data	Total
I	6 (15.4%)	33 (84.6%)	. .	39 (100%)
II	3 (14.2%)	18 (85.8%)	. .	21 (100%)
Totals	9 (15.0%)	51 (85.0%)	. .	60 (100%)

C. MOTHER WORKING

Groups	Yes	No	No Data	Total
I	1 (2.6%)	38 (97.4%)	. .	39 (100%)
II	2 (14.2%)	18 (85.8%)	. .	21 (100%)
Totals	4 (6.7%)	56 (93.3%)	. .	60 (100%)

* For Group I, Infant was born in July.
For Group II, Infant was born in November.

D. PLANNED CHILD

Groups	Yes	No	No Data	Total
I	12 (30.8%)	27 (69.2%)	. .	39 (100%)
II	7 (33.3%)	14 (66.7%)	. .	21 (100%)
Totals	19 (31.7%)	41 (68.3%)	. .	60 (100%)

E. BREAST FEEDING

Groups	Breast Fed	Bottle Fed	No Data	Total
I	9 (23.1%)	20 (76.9%)	. .	39 (100%)
II	4 (19.0%)	17 (81.0%)	. .	21 (100%)
Totals	13 (21.7%)	47 (78.3%)	. .	60 (100%)

F. SEPARATE ROOM FOR INFANT

Groups	Yes	No	No Data	Total
I	9 (23.1%)	30 (76.9%)	. .	39 (100%)
II	4 (19.0%)	17 (81.0%)	. .	21 (100%)
Totals	13 (21.7%)	47 (78.3%)	. .	60 (100%)

G. NUMBER OF CHILDREN

Groups	PrimaPara	MultiPara	No Data	Total
I	12 (30.8%)	27 (69.2%)	. .	39 (100%)
II	5 (23.8%)	16 (76.2%)	. .	21 (100%)
Totals	17 (28.3%)	43 (71.7%)	. .	60 (100%)

H. FATHER'S OCCUPATION

Groups	Labor	White Collar	Military or Student	Professional	No Data	Total
I	16 (41.0%)	9 (23.1%)	8 (20.6%)	6 (15.4%)	. .	39 (100%)
II	16 (76.2%)	3 (14.3%)	2 (9.5%)	. .	. .	21 (100%)
Totals	32 (53.3%)	12 (20.0%)	10 (16.7%)	6 (10.0%)	. .	60 (100%)

I. BIRTH WEIGHT OF INFANT (IN POUNDS)

Groups	Under 5	5	6	7	8	9	10 and over	No Data	Total
I	. .	2 (5.1%)	5 (12.8%)	16 (41.0%)	11 (28.2%)	4 (10.3%)	1 (2.5%)	. .	39 (100%)
II	. .	3 (14.3%)	5 (23.8%)	6 (28.6%)	6 (28.6%)	. .	1 (4.8%)	. .	21 (100%)
Totals	. .	5 (8.3%)	10 (16.7%)	22 (36.7%)	17 (28.3%)	4 (6.7%)	2 (3.3%)	. .	60 (100%)

J. MOTHER'S AGE

Groups	Under 20	20-29	30-39	40-49	No Data	Total
I	4(10.3%)	28 (71.8%)	7 (17.9%)	. .	. .	39 (100%)
II	3 (14.3%)	14 (66.7%)	4 (19.0%)	. .	. .	21 (100%)
Totals	7 (11.7%)	42 (70.0%)	11 (18.3%)	. .	. .	60 (100%)

K. FATHER'S AGE

Groups	Under 20	20-29	30-39	40-49	No Data	Total
I	1 (2.6%)	26 (66.7%)	6 (15.4%)	6 (15.4%)	. .	39 (100%)
II	1 (4.8%)	12 (57.1%)	6 (28.6%)	2 (9.5%)	. .	21 (100%)
Totals	2 (3.3%)	38 (65.3%)	12 (20.0%)	8 (13.3%)	. .	60 (100%)

TABLE 66

FATHER PRESENT IN ROOM WITH INFANT BY ADJUSTMENT INDICATORS (UNCONTROLLED) *

A. MOTHER'S NERVOUSNESS

Groups	Reported Nervousness: Very Relaxed	Relaxed	Nervous	Very Nervous	No Data	Total
I	15 (35.7%)	23 (54.8%)	3 (7.1%)	. .	1 (2.4%)	42 (100%)
II	37 (42.0%)	41 (46.6%)	9 (10.2%)	1 (1.1%)	. .	88 (100%)
No Data	. .	. .	1 (100%)	. .	. .	1 (100%)
Totals	52 (39.7%)	64 (48.9%)	13 (9.9%)	1 (0.7%)	1 (0.7%)	131 (100%)

B. FATHER'S NERVOUSNESS

Groups	Reported Nervousness: Very Relaxed	Relaxed	Nervous	Very Nervous	No Data	Total
I	7 (16.7%)	29 (69.0%)	2 (4.8%)	2 (4.8%)	2 (4.8%)	42 (100%)
II	21 (23.9%)	54 (61.3%)	9 (10.2%)	2 (2.3%)	2 (2.3%)	88 (100%)
No Data	. .	1 (100%)	. .	. .	. .	1 (100%)
Totals	28 (21.4%)	84 (64.2%)	11 (8.4%)	4 (3.1%)	4 (3.1%)	131 (100%)

C. MOTHER'S IRRITABILITY

Groups	Reported Irritability: Very Much	Moderate	Slight	None	No Data	Total
I	2 (4.8%)	10 (23.8%)	20 (47.6%)	10 (23.8%)	. .	42 (100%)
II	5 (5.7%)	15 (17.0%)	44 (50.0%)	24 (27.3%)	. .	88 (100%)
No Data	. .	. .	1 (100%)	. .	. .	1 (100%)
Totals	7 (5.3%)	25 (19.1%)	65 (49.7%)	34 (26.0%)	. .	131 (100%)

* Group I not present, Group II father was present.

D. FATHER'S IRRITABILITY

Reported Irritability

Groups	Very Much	Moderate	Slight	None	No Data	Total
I	. .	3 (7.1%)	12 (28.6%)	26 (60.9%)	11	42 (100%)
II	. .	4 (4.5%)	20 (22.7%)	64 (72.8%)	. .	88 (100%)
No Data	. .	. .	1 (100%)	. .	. .	1 (100%)
Totals	. .	7 (5.3%)	33 (25.2%)	90 (69.8%)	1 (0.7%)	131 (100%)

E. TENSION BETWEEN PARENTS

Reported Tension

Groups	Very Much	Somewhat	None	No Data	Total
I	1 (2.4%)	12 (28.6%)	29 (69.0%)	. .	42 (100%)
II	. .	28 (31.8%)	59 (67.1%)	1 (1.1%)	88 (100%)
No Data	. .	1 (100%)	. .	. .	1 (100%)
Totals	1 (0.7%)	41 (31.3%)	88 (67.2%)	1 (0.7%)	131 (100%)

F. INFANT'S VOMITING

Reported Vomiting

Groups	Yes	No	No Data	Total
I	9 (21.4%)	33 (78.6%)	. .	42 (100%)
II	12 (13.6%)	76 (86.4%)	. .	88 (100%)
No Data	. .	1 (100%)	. .	1 (100%)
Totals	21 (16.0%)	110 (84.0%)	. .	131 (100%)

G. INFANT'S COLIC

Reported Colic

Groups	Yes	No	No Data	Total
I	13 (31.0%)	29 (69.0%)	. .	42 (100%)
II	19 (21.0%)	69 (78.4%)	. .	88 (100%)
No Data	1 (100%)	. .	. .	1 (100%)
Totals	33 (25.2%)	98 (74.8%)	. .	131 (100%)

H. INFANT'S REFUSAL OF FOOD

Reported Refusing Food

Groups	Yes	No	No Data	Total
I	2 (4.8%)	39 (92.8%)	1 (2.4%)	42 (100%)
II	2 (2.3%)	86 (97.7%)	. .	88 (100%)
No Data	. .	1 (100%)	. .	1 (100%)
Totals	4 (3.1%)	126 (96.2%)	1 (0.7%)	131 (100%)

I. FORMULA FINDING PROBLEMS

Reported Problems

Groups	Yes	No	No Data	Total
I	5 (11.9%)	35 (83.3%)	2 (4.8%)	42 (100%)
II	9 (10.2%)	79 (89.8%)	. .	88 (100%)
No Data	. .	1 (100%)	. .	1 (100%)
Totals	14 (10.7%)	115 (87.8%)	2 (1.5%)	131 (100%)

J. INFANT'S DIAPER RASH

Reported Diaper Rash

Groups	Yes	No	No Data	Total
I	6 (14.3%)	34 (80.9%)	2 (4.8%)	42 (100%)
II	13 (14.8%)	74 (84.1%)	1 (1.1%)	88 (100%)
No Data	1 (100%)	. .	. .	1 (100%)
Totals	20 (15.3%)	108 (82.5%)	3 (2.3%)	131 (100%)

K. INFANT'S DIARRHEA

Reported Diarrhea

Groups	Yes	No	No Data	Total
I	3 (7.1%)	37 (88.1%)	2 (4.8%)	42 (100%)
II	9 (10.2%)	78 (88.7%)	1 (1.1%)	88 (100%)
No Data	1 (100%)	. .	. .	1 (100%)
Totals	13 (9.9%)	115 (87.8%)	3 (2.3%)	131 (100%)

L. INFANT'S CONSTIPATION

Reported Constipation

Groups	Yes	No	No Data	Total
I	6 (14.3%)	34 (80.9%)	2 (4.8%)	42 (100%)
II	6 (6.8%)	81 (92.1%)	1 (1.1%)	88 (100%)
No Data	. .	1 (100%)	. .	1 (100%)
Totals	12 (9.2%)	116 (88.6%)	3 (2.3%)	131 (100%)

M. OTHER PROBLEMS

Reported Problems

Groups	Yes	No	No Data	Total
I	6 (14.3%)	34 (80.9%)	2 (4.8%)	42 (100%)
II	5 (5.7%)	82 (93.2%)	1 (1.1%)	88 (100%)
No Data	. .	1 (100%)	. .	1 (100%)
Totals	11 (8.4%)	117 (89.4%)	3 (2.3%)	131 (100%)

N. ANXIETY ABOUT FUTURE RELATIONSHIP

Reported Anxiety

Groups	Very Much	Somewhat	None	No Data	Total
I	2 (4.8%)	6 (14.3%)	33 (78.5%)	1	42 (100%)
II	1 (1.1%)	15 (17.0%)	72 (81.9%)	. .	88 (100%)
No Data	. .	. .	1 (100%)	. .	1 (100%)
Totals	3 (2.3%)	21 (16.0%)	106 (80.9%)	1 (0.7%)	131 (100%)

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