

1994

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MOTHERS' INFORMATION NEEDS AND PERCEPTIONS OF
PREPAREDNESS FOR SELF-CARE AND INFANT CARE AFTER
A SHORT-TERM HOSPITAL STAY

BY

DONNA M. PAULSEN

A THESIS

Submitted to
Grand Valley State University
in Partial Fulfillment of the requirements for
the degree of

MASTER OF SCIENCE IN NURSING

Kirkhof School of Nursing

1994

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ABSTRACT

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Based on Orem's Theory of Self-Care, this descriptive study compared the information needs and perceived preparation of self and infant care for 22 primiparous and 36 multiparous women. A convenience sample of women experiencing a short-term (24 Hour) hospital stay responded to a structured questionnaire. Preparation was measured using Degenhart-Leskosky's (1989) modification of Howard and Sater's (1985) tool. Content validity was established in the original study. The majority of the women perceived themselves to be well or very well prepared for self-care (87%) and infant care (78%). Multiparas perceived themselves to be significantly better prepared for self-care ($U = 256.5, p < .04$) and infant care ($U = 222, p < .01$). Information on cord care and feeding was needed by 50% of the women. Findings support the need for individualized discharge planning.

Acknowledgements

I wish to thank those who assisted with this research. My committee chair, Patricia Underwood, Ph.D., R.N. for her guidance. My committee members, Joyce French, Ph.D., R.N. and Theresa Bacon-Baguley, Ph.D., R.N. for their reviews and suggestions. My statistician Cynthia Peltier Coviak, M.S.N., R.N. for her patience and perseverance with my statistics computations. My dear husband, John for his patience and financial support for this long standing project.

TABLE OF CONTENTS

List of Tables.....	vi
List of Figures.....	vii
List of Appendices.....	viii
CHAPTER	
1 INTRODUCTION.....	1
2 LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK.....	5
Conceptual Framework.....	5
Review of the Literature.....	11
Length of Hospital Stay.....	12
Concerns.....	22
Preparedness.....	32
Summary and Implications.....	33
Research Question.....	34
Definitions of Terms.....	34
3 METHODOLOGY.....	36
Design.....	36
Sample and Setting.....	36
Instrument.....	37
Procedure.....	40
4 DATA ANALYSIS.....	42
Characteristics.....	42
Information Needs and Preparedness.....	43
Primipara and Multipara Comparison.....	46
5 DISCUSSION.....	50
Discussion.....	50
Limitations.....	53
Implications for Nursing.....	53
Further Research.....	55
Conclusion.....	55

6	APPENDICES.....	56
7	REFERENCES.....	70

List of Tables

Table 1	Source of Information.....	43
Table 2	Feeding Plan.....	44
Table 3	Most Commonly Needed Information.....	44
Table 4	Perceptions of Preparedness in Areas Where Information Was Needed.....	45
Table 5	Items of Information Needed Most by Primiparas and Multiparas.....	48
Table 6	Comparison by Categories of Information Needed Between Parity Groups.....	49

List of Figures

Figure 1 Self-Care Model.....7
Figure 2 Application of Orem's Self-Care Model.....10

List of Appendices

Appendix A	Script.....	56
Appendix B	Informed Consent.....	57
Appendix C	Mother Baby Survey.....	58
Appendix D	Questionnaire.....	59
Appendix E	Permission to Use Tool.....	69

INTRODUCTION

New mothers often have concerns related to their own care and the care of their newborn infants. The type of information received by new mothers while on the maternity ward often makes a difference in the mothers' perceptions of confidence for self-care and infant-care.

While in the hospital, nurses can assist new mothers to learn the skills necessary to care for themselves and their newborns. Nurses, however, must first assess the new mothers' physical capabilities, psychological status, their learning abilities, and their readiness to learn information about their own care and the care of their newborn. Factors such as previous experiences with childbearing and attending prenatal education classes may also influence the need for information. With the short length of hospital stay on a postpartum unit, the time for teaching is definitely limited. Thus, nurses need to focus on identifying what particular information needs new mothers have during the postpartum period about their own care needs and the needs of others. Once these information needs have been identified, nurses can facilitate patient learning in the hospital and after discharge by providing health education programs, follow-up telephone calls, home visiting services,

postpartum hotlines, and early parenting classes (Degenhart-Leskosky, 1989; Lemmer, 1987).

In addition to assessing and identifying what particular concerns new mothers have regarding self-care and infant-care needs, the nurse must also realize that there are various reasons why it is difficult for new mothers to assimilate information while they are on the postpartum unit. First, new mothers' have priority needs for rest, bodily comfort, and bonding with their newborn during the immediate and early postpartum period. This often makes it difficult for them to assimilate much information in the first 24 hours following the birth of their infant (Ament, 1990; Lemmer, 1987). A second factor that may decrease the mothers' assimilation of information is the short time-frame in which new knowledge must be acquired in order to appropriately care for oneself and the infant when discharged from the hospital. With the lengths of hospital stay being 24 hours or less, the new mother finds all this information confusing and inadequate to meet her immediate needs. Often times the vast amount of information, the way it is presented by the hospital staff, the mother's preoccupation with her infant, or the remembrance of her labor and delivery experience decrease the mother's ability to understand or assimilate information at this particular time in her life. These factors must be taken into consideration before planning and implementing a program

that will maximize/enhance the mother's ability to learn the skills necessary to provide care for herself and her infant.

Rising health care costs and changing reimbursement policies have generated great pressure to discharge obstetrical patients from the hospital as quickly as possible. With the advent of Health Maintenance Organizations (HMOs) and third party payers, longer hospital stays for the obstetrical patient may become economically prohibitive (Norr & Nacion, 1987). Early discharge (24-48 hours after delivery) programs have been in existence for many years. In the 1960's, early discharge from the hospital was an option, based on bed shortages and economics. Mothers's were encouraged to go home early (Hellman, Kohl, & Palmer, 1962). In the 1980's, psychological considerations, accentuating a family-oriented view were emphasized and patients were again encouraged to go home early (Arborelius & Lindell, 1989). Today hospital discharge in 24 hours or less is not just an option based on a woman's preference but is rapidly becoming mandated by insurance providers (Ament, 1990).

With the changes in health care delivery, challenges will have to be met by both the consumer and the nurse. The consumers' (new mother) challenge will be to learn how to care for herself and her new infant in a very short period of time. The nurse's challenge will be to teach the mother all the things necessary to care for herself, her infant,

and the new family which may include other siblings at a time when learning is not at an optimum. Also, the nurse must consider what the mother's concerns and information needs are so that she can teach as much pertinent information as possible in the limited time frame.

Short term hospital stays and changing expectations of the motherhood role have brought about the need to study postpartum women's ability to administer self-care and infant-care. With all the physical and psychological changes occurring after birth, and the limited time for learning, women's perceptions of what they were taught by nurses may be altered. Thus, it is necessary to identify the information needs of women who are discharged within 24 hours after the birth of their infants and to evaluate their perceptions of preparedness to meet the challenges of caring for themselves and their infants.

The purpose of this study was to compare perceived information needs and perceived preparation for self-care of multiparas and primiparas.

CHAPTER 2

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

Conceptual framework

Individual and group-focused education programs are needed within the postpartum clinical setting to help mothers' identify their needs and concerns about caring for themselves and their infants. New mothers require assistance and teaching in order to meet any knowledge deficits they may have about self-care and infant-care. Through self-determined actions, new mothers are motivated and learn to accept responsibility for their own care and that of their infants. Nurses in the health-care setting have traditionally taught and assisted new mothers to attain the knowledge, skills, and motivation necessary to care for themselves and their infants.

Orem's (1991) Self-Care Deficit Theory (SCDT) offers a framework for the interaction between the nurse and the patient in a maternity setting. This theory encompasses the major concepts of: self-care, self-care agency, therapeutic self-care demands, self-care limitations, self-care deficits, self-care requisites, and the nursing system. Self-care refers to "the practice of activities that individuals initiate and perform on their own behalf in

maintaining life, health, and well being" (p. 117).

Normally adults engage in their own self-care actions while infants, children, the aged, the ill, or the disabled require the assistance of another to perform some or all of their self-care measures (Orem, 1991).

Self-care agency is the action potential or the capability of an individual to perform self-care. It encompasses the knowledge, power, or ability of an individual to act, and includes cognitive knowing, affective feeling, and psychomotor development. The use of agency involves alternatives, determinations, and performance (Joseph, 1980). Self-care agency is influenced by what Orem calls basic conditioning factors. Age, gender, developmental state, health state, sociocultural orientation, health care systems, family systems, patterns of daily living, environmental factors, and resource availability and adequacy are the basic conditioning factors that are internal or external to individuals and may influence one's ability to engage in self-care (Orem, 1991).

Therapeutic self-care demand (TSCD) is a specified set of actions that need to be performed by the individual (self-care agent) in order to maintain health and wellness. Therapeutic self-care demand arises from a self-care agent's need to engage in or modify life cycle events, engage in or modify self-care practices, or to acquire technologies consistent with the maintenance of health and well being

(Orem, 1991). The ability of a self-care agent to meet a demand is dependent on three characteristics, knowledge, motivation, and skill (Joseph, 1980). When an individual is unable to meet a demand, nursing becomes involved. Nursing evaluates an individual's TSCD by assessing his/her assets and limitations and assists the individual to devise a plan of action to meet specific goals towards self-care (Fig. 1).

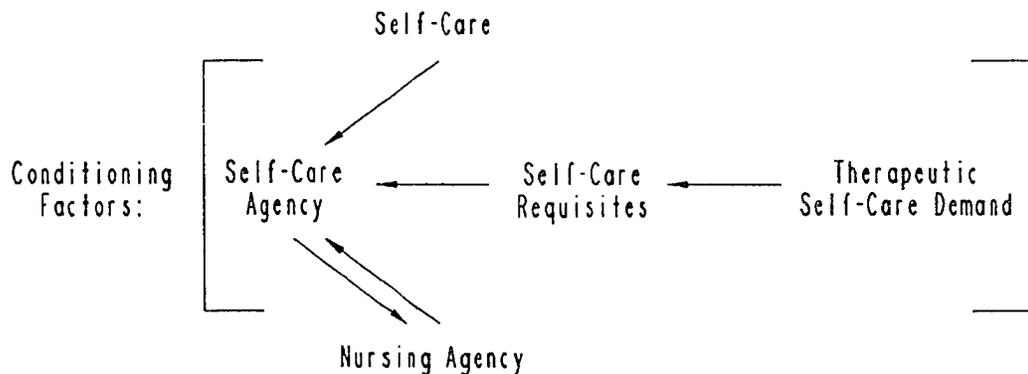


Figure 1. Self-Care Model

Orem believes that individuals have two types of restrictions that may require assistance from others. These are known as self-care limitations and self-care deficits. Self-care limitations restrict individuals from having the amount and kind of self-care that they need for existing and changing conditions and circumstances. Three kinds of limitations have been identified in Orem's (1991) theory:

restrictions of knowing, restrictions on judgement and decision making, and restrictions on result-achieving actions in either the investigative or production phases of self-care. Restrictions in any of these areas can cause an individual to have a need for nursing. A Self-care deficit is a relationship that exists when the individual is incapable of meeting their therapeutic needs. Self-care deficits determine when and why nursing is needed.

The establishment of a nurse patient relationship is based on the assessment of an individual's needs (self-care requisites). Orem (1991) identifies three kinds of requisites: universal self-care requisites, developmental self-care requisites, and health deviation self-care requisites. Universal self-care requisites are common to all human beings and include the maintenance of air, water, food, elimination, activity and rest, solitude and social interaction, safety, and normalcy. Developmental self-care requisites are associated with specific stages of the life cycle and have been particularized for the developmental processes or have been derived from a new condition or associated event. The Health-deviation self-care requisites are associated with those who are ill or injured, have specific forms of pathology and who are under medical diagnosis and treatment (Orem, 1991).

Nursing systems provide a means to assist individuals, as patients, to meet their self-care needs. Orem (1991)

describes three types of nursing systems that can be used to help patients: the wholly compensatory, the partially compensatory, and the supportive-educative system. The wholly compensatory system is used when the nurse's main action is to support and protect the individual who is unable to accomplish his/her therapeutic self-care or engage in self-care actions. The partially compensatory system is used when the nurse's action is to assist individuals as required and to compensate for his/her self-care limitations by performing some self-care measures for them. In the supportive-educative system the individual is able to perform and therefore should learn to perform self-care measures but is unable to do so without assistance (Eben, Nation, Mariner, & Nordmeyer 1989). Valid assistance by the nurse in such situations would include all or a combination of: acting and doing for, supporting, guiding, providing a developmental environment, and teaching.

In a supportive-educative system, the individual's requirements for assistance are confined to decision making, behavior control, and acquiring knowledge and skills (Orem, 1991). For example, in order to attain the goal of self-care, the mother's self-care agency (SCA) and TSCD must be in balance, that is the mother must have knowledge about involution and infant care and the skills to administer infant care. If the mother's TSCD or SCA are not balanced then a deficit (information needs) exists and nursing is

required to assist the mother attain self-care (Fig. 2). The basic conditioning factors of age, parity, education, sociocultural, and economic factors are the external variables that impact on the mother's TSCD and SCA.

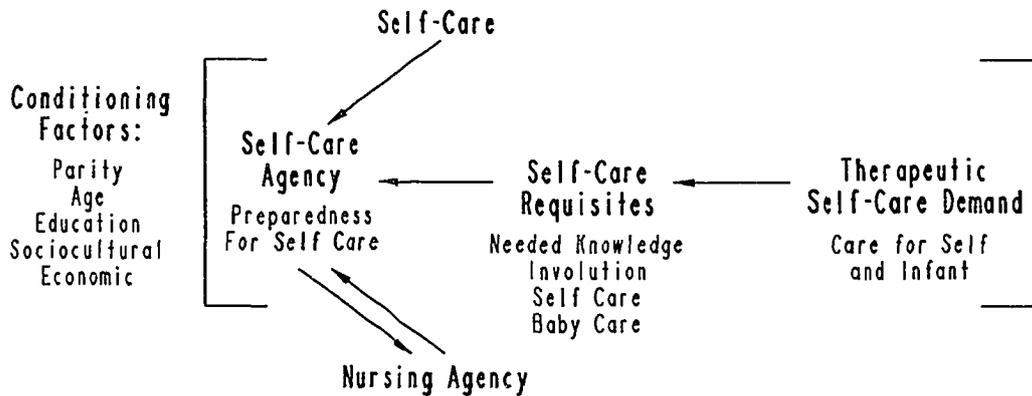


Figure 2. Application of Orem's Self-Care model

The supportive-educative system will be utilized for this study and several methods of assistance will be suggested. Guiding and supporting are the methods used to assist mothers in making choices and pursuing courses of action. The nurse assists the mother by offering suggestions, instructions, directions, or supervision. Orem (1991) states that by offering physical or emotional support, the nurse is able to "encourage another person to initiate or persevere in the performance of the task, to think about a situation, or to make a decision (p. 10). A

developmental environment is provided when the nurse strives to assist the mother in forming or changing certain attitudes, behaviors, or values, make creative use of abilities the mother may have available, and promote adjustments of self-concept and physical development (Orem, 1991). Teaching is used to help new mothers in developing knowledge or the particular skills necessary for self-care behaviors (Davis, Brucker, & MacMullen, 1988; Degenhart-Leskosky, 1989; Orem, 1991; Petrowski, 1981).

To assist mothers in self-care behaviors nurses must understand the processes involved in self-care. Research in this area suggests that self-care behaviors are largely a product of subjective perceptions; that is people/mothers behave according to what they believe and how they feel (Keller, Ward, & Baumann, 1989). To study mothers information needs and preparedness after a 24 hour hospital stay, it is necessary to research the literature involving short term hospital stay, concerns of postpartum mothers, and mothers perceptions of self-care abilities after short term hospital stay.

Review of the literature

The literature was reviewed in relationship to three areas: length of hospital stay, concerns, and preparedness. The length of hospital stay was critiqued to determine if a critical conditioning factor exists that warrants a closer examination of this population. Concerns were looked at as

a reflection of the postpartum mother's perceived therapeutic self-care demand as well as an understanding of the requisites required to meet the demand. Preparedness, for this study, represents a reflection of the postpartum mother's self-care agency.

Length of hospital stay. Sending mothers and newborns home early after delivery has many advantages: Hospital costs are reduced, mothers' and infants' exposure to pathogens is reduced, and there is likely to be greater enhancement of parent-child bonding and a lessened disruption of family life (Arborelius & Lindell, 1989; Berryman & Rhodes, 1991; Carty & Bradley, 1990; Feldman, 1992; Jansson, 1985; Lukacs, 1991; Norr, Nacion, & Abramson, 1989; Patterson, 1987; Sandrick, 1984; Williams & Cooper, 1993). Discussion of short stay in the literature was centered around three topics: economics, mother-infant outcomes, and satisfaction with the length of hospital stay.

The majority of the articles found in the literature related to cost savings by the use of early postpartum discharges; however, only three studies and one report gave statistics on the amount of money saved by shortened length of hospital stays. Berryman & Rhodes (1991) reported on a program done in the military. It improved patient satisfaction, reduced the costs of hospital stay by \$186,000 a year, and saved the government 490 days of patient

hospitalization over a one year period. The authors attributed these benefits to three factors:

1. The building of a new birthing center which increased patient satisfaction of care and added clout to the military retention and recruiting incentive of medical care.

2. The ability to utilize empty postpartum rooms for other gynecologic procedures, thereby freeing rooms on other wards for general admissions.

3. The ability to increase the delivery rate at this institution (the delivery rate increased by 62 patients in the first year of operation).

Feldman (1992) used a computerized database to record the length of stay before and after the initiation of an early postpartum discharge program for mother-infant dyads without medical problems. Three of the four hospitals studied had a net savings of \$61,048 for 911 patients over a 21 month period. This amounted to a \$67 savings per dyad or about 10% of the cost of an average hospital day.

Williams and Cooper (1993) published a report on a home-centered postpartum recovery program designed to meet the health-care needs of mothers, infants, and families after a short term hospital stay. This program saved \$500,000 for 925 patients in 1990. Savings were calculated from a formula multiplying hospital days saved by hospital stays per diem and subtracting home care cost.

Early postpartum discharge programs are appearing in maternity services across the country in response to spiraling health care costs and maternity consumerism (Stern, 1991). Several studies indicated that sending mothers and infants home early is safe for both mother and infant (Norr & Nacion, 1987; Lemmer, 1987), decreases mothers' and infants' exposure to hospital pathogens and iatrogenic complications (Jansson, 1985; Sandrick, 1984), and produces greater confidence in the mothering role and less depression in the first months postpartum (Carty & Bradley, 1990). Other studies have implied that shortened length of hospital stay provides the opportunity for the mother and infant to be at home with the rest of the family as soon as possible, thus lessening the disruption of family life and enhancing family well being and parent-child bonding (Jansson, 1985; Mc Namara, 1987; Patterson, 1987; Scupholme, 1981).

Norr and Nacion (1987) examined outcomes of early postpartum discharge programs from 1960-1986. Most of the studies looked at length of stay (LOS) 24 hours or less, however, Hellman, Kohl, and Palmer's (1962) study looked at LOS less than 72 hours and Jansson's (1985) study looked at LOS 48 hours or less. The number of women participating in the studies ranged from 35 to 1941 with 316 control subjects. Maternal morbidity ranged from 0-1.9%. From all the programs, 10 mothers required readmission to the

hospital; six for endometritis, two for late postpartum hemorrhage, one for postpartum depression, and one for an abscessed episiotomy. Infant morbidity involved 84 readmissions from all the studies. The highest incidence of infant readmissions was 11% (4-7% was average). The author thought this variability reflected differences in the definition and treatment of hyperbilirubinemia. The reasons for readmission of infants were hyperbilirubinemia, transient tachypnea, bradycardia, and hypothermia. Only one study reported infant mortalities (Hellman, Kohl, & Palmer 1962). Four neonatal deaths were reported, 0.46% in the early discharge group and 0.26% for late discharge group. Nearly all reported outcomes were for programs serving advantaged middle class populations with extensive prenatal preparation and postpartum follow-up. Three studies, (Contrell, 1983; Hellman, Kohl, & Palmer 1962; Scupholme, 1981) looked at populations of low income, non welfare, or disadvantaged populations. These studies also found no increase in maternal or infant morbidity for an early discharge group. All programs for which outcomes were available had some follow-up. The most limited form of follow-up was an office visit 72 hours after discharge. The majority of the other programs offered one or two home visits by nurses with advanced education and assessment skills, such as, nurse practitioners, certified nurse-midwives, and perinatal nurse practitioners.

Norr, Nacion, and Abramson (1989) compared three groups of low risk and low income mothers and infants using a quasi-experimental design study. One hundred and twenty-four mothers in the first group were discharged with their infants 24-47 hours after delivery. Ninety-four mothers in the second group were discharged separately from their infants at 24-47 hours because of infant medical problems. The infants generally went home 24-48 hours later. One hundred and fifteen mothers were placed in a third group (the conventional/ control group) and were discharged 48-72 hours after delivery. This group was eligible for 24 hour discharge but chose to stay longer. Instruments used were the Avant (1982) Maternal Attachment Scale with an interobserver reliability of .85 and the Bull (1981) Concerns Scale with a Cronbach's alpha of .94. Findings from the study indicated no significant differences between the early discharge group and the two control groups in overall incidence of maternal infant morbidity at seven and fifteen days postdelivery. The researchers, however, did mention that infants of low income mothers tended to have a high rate of physical problems during the first two weeks of life. Among 333 infants, 148 had one or more problems. Problems identified were: constipation, diarrhea, eye drainage, and thrush, and failure to gain weight. Maternal and attachment scores differed significantly in the three groups. Mothers discharged early with their infants had the

highest attachment scores, while mothers discharged without their infants had the lowest attachment scores. Mothers in the conventional group fell somewhere in between.

Most of the studies looked at outcomes in terms of maternal and infant health (morbidity and mortality), however, several studies looked at psychological aspects, breastfeeding continuation, and confidence in the mothering role (Arborelius & Lindell, 1989; Carty & Bradley, 1990; Waldenstrom, Sundelin, & Lindmark, 1987). Arborelius and Lindell (1989) compared the psychological effects of early and late discharge after hospital delivery using a structured interview technique (thirty questions) in the mothers' home. Forty-four mothers participated in the study, seven were primiparas and thirty-seven were multiparas. The Mann-Whitney U-test was used to examine differences between the early discharge group and the control/late discharge group. Mothers in the early discharge group reported less sibling rivalry than the control group ($p = .03$). No other significant psychological factors (e.g., support, problems with breast feeding, etc.) were reported by either the early or late discharge groups.

Carty and Bradley's (1990) study also indicated other outcomes besides morbidity and mortality. In a sample of 131 women, three types of discharges were compared: The first group of 44 women stayed in the hospital 12-24 hours; the second group of 49 women stayed in the hospital 25-48

hours; and the third group of 38 women stayed in the hospital 4 days. Findings of the research indicated that 98% of all the women in the study were breastfeeding at the time of discharge. At one month 87% of the early discharge groups and 79% of the traditional stay group continued to breast feed their infants. Psychological functioning was evaluated on the basis of depressive affect and confidence in the mothering role. The depressive affect was measured on the Beck Depression Index (Beck, Ward, & Mendelson 1961; Beck, Steer, & Garbin 1989). The mothers in the traditional group were found to be more depressed at one month than the mothers in the 24 hour group $F(2,88) = 4.13, p < .05$. Confidence regarding the mothering role was assessed using the subscale of a questionnaire developed for a previous study by the authors. Confidence in the mothering role was found to be significantly higher in the 24 hour group than in the other two groups $F(2,114) = 3.47, p < .03$. A limitation of the study was that all the mothers were healthy, living in a stable relationship with their husbands or partners, and in a middle class population. Therefore, findings could not be generalized to high-risk populations.

Waldenstrom, Sundelin, and Lindmark (1987) studied breastfeeding among women discharged early and late after normal delivery in a hospital. The population consisted of 50 mother-infant pairs in the early discharge group (EG), and 54 mother-infant pairs in the late discharge/control

group (CG). The Chi squared test and the student's t-tests were used for statistical analysis. Findings reported were:

1. 76% of women in the EG and 87% of women in the CG were breastfeeding at two months.

2. 63% of the multiparas in the EG and 41% in the CG were breastfeeding at six months ($p = .06$).

3. Primiparas in the two groups showed no statistical significance in duration of breastfeeding; 33% were breastfeeding at six months.

4. 2% of infants in the EG and 72% in the CG received supplements of breast milk at least once during their first weeks of life.

5. Infants in EG were breastfed more often on the 2nd (NS), 3rd ($p < .05$), and 4th day ($p < .001$) compared to infants in the CG.

6. Differences in infants' weight gain between the two groups were not statistically significant.

7. There was no statistically significant difference between the EG and the CG women in their experience of success in breastfeeding. The researchers concluded that early discharge does not have a negative affect on the duration of breastfeeding.

Satisfaction with the length of hospital stay and postpartum care has been reported in the literature numerous times. Arborelius and Lindell (1989) reported that parents choosing early discharge are very satisfied with their

choice. In Avery, Fournier, Jones, and Sipovic's (1982) study, 93% of the women felt comfortable about going home in 24 hours. All the women also felt they had received enough instruction before going home. Ninety-eight percent of the women in this study thought the home visit was helpful. A home referral program was made available to the women in this study; 71% made use of the program and 29% did not use the referral but liked its availability. Carty and Bradley (1990) found a significant difference in satisfaction with nursing care among three groups of women who were discharged from the hospital in 12-24 hours, 25-48 hours, and 4 days. The women who were discharged in 12 to 24 hours had a significantly different score than the other two groups ($F[2,88] = 7.65; p < .0009$).

In another study using three groups of low income mothers, Norr, Nacion, and Abramson (1988) found that mothers who were discharged early from the hospital with their infants were more satisfied with care than mothers in the two control groups. Scupholme (1981) who also studied the impact of early discharge on low income mothers, found that all patients responding to the questionnaire were satisfied with the early discharge program and would recommend it to their friends. All respondents felt they were adequately prepared for early discharge. When asked why they chose early discharge, 80% said it was because they

wanted to be with their families as soon as possible. The remaining 20% chose early discharge for financial reasons.

Patterson (1987) examined patient satisfaction and family well-being as well as length of hospital stay. Both groups were equally satisfied with their postpartum care. On a scale of 1-5, a mean rating of 4.1 was reported for eleven factors. When looking at length of stay, Patterson (1987) found that 80% of both groups were satisfied with their hospital stay; a few thought it was too long (early group = 12%; late group = 4%); and 11% of both groups thought their hospital stay was too short.

Shortened length of hospital stay has an impact on health care delivery, because of cost containment, technological advances, and consumer demands for quality care. The literature revealed that early discharge with programs to augment transition from the hospital to home care are in a continuous stage of development and revision to supply consumers with quality health care at a reasonable price. A majority of the current studies found favorable outcomes for both mothers and infants of middle class and low income families. Findings from research have implied that mothers who go home early are more satisfied with their postpartum care and length of hospital stay providing they have other programs to assist them in the early puerperal period. Programs cited were home visits by a nurse or midwife, follow-up telephone calls a few days after

delivery, and support groups where mothers or couples can share ideas and concerns.

Concerns. Postpartum women have many issues or concerns about themselves and their infants upon discharge from the hospital. The shortened length of stay and the need for information and the skills to perform self-care measures has prompted this researcher to study postpartum womens' information needs and perceptions of preparedness for self-care and dependent-care following a short-term hospital stay. The literature had numerous studies on the concerns of women in the postpartum period. Most of the research was done from a period covering a few days after discharge from the hospital to three months. (Bull, 1981; Graef, McGhee, Rozycki, Fescina-Jones, Clark, Thompson, & Brooten, 1988; Gruis, 1977; Hiser, 1987; Moss, 1981; Pridham, Hansen, Bradley, & Heighway, 1982; Sumner & Fritsch, 1977).

During the first few days of the postpartum period, the mother is adjusting to her new role and trying to take on the tasks of the puerperium. Gruis's (1977) study involving 40 mothers looked at four tasks all mothers need to accomplish during this period. These tasks are: "physical restoration, learning to care for and meeting the needs of the dependent infant, establishing a relationship with the infant, and alteration in life style and relationships to accommodate a new family member " (p. 182). In this study, Gruis found that 95% of the mothers were concerned about

their figures returning to normal. Similar results were obtained by Hiser (1987). Hiser and Gruis both attributed this finding to the emphasis our culture places on the thin, attractive, female figure in our society. The second most important concern for 90% of the mothers was regulating the demands of husband, household, and children. One factor in this study which differs from later studies is that fewer than one-fourth of the total group were greatly concerned about the overall area of infant care. Most of those who were concerned with infant care were primiparas. The items of greatest concern about infants were in regard to physical care and safety. Likewise, Howard and Sater (1985) and Degenhart-Leskosky (1989), found that care of the infant was a primary concern of the adolescent primiparous mother. In a descriptive study by Bull (1981), concerns were defined as "questions, worries, or areas of marked preoccupation or interest related to the puerperium; concerns were classified in relation to self, baby, husband, family and community" (p. 391). Although none of Bull's hypotheses were supported she did find some significant differences related to frequency and intensity of concerns in the first postpartum week. Bull reported the following differences: (1) there were no changes in frequency or intensity of concerns in self after one week at home (2) Concerns relating to the infant decreased in frequency and intensity at seven days

($p = .05$) (3) The frequency and intensity of concerns related to emotional self increased after one week at home. Bull's findings suggest that there is a maternal focus on self and infant during the first postpartum week.

In a study of 42 primiparous women, Lemmer (1987) compared the time of discharge with infant outcomes. Half of the mothers chose to be discharged in 12-24 hours and half chose to be discharged in 36-80 hours. For primiparas in this study, the most intense concerns, regardless of length of stay, focused on infant care and behavior, maternal body image, and signs and symptoms of illness.

Other researchers have looked at various time frames in the postpartum period. Moss (1981) and Hiser (1987) both used interviews to look at multiparas concerns. A card-sort tool developed by Moss was used in both studies. The tool was divided into three areas: worries, something the mother was anxious about; interests, something the mother was curious about; and not a concern, something the mother felt comfortable about at the time. Reliability of the tool using the Spearman-Brown prophesy was .84, .86, and .89. The three categories studied were family, mother, and infant. Moss interviewed 56 women in the hospital. The main area of concern on the third postpartum day was family. Ninety-eight percent of the women were concerned about the children at home and their reaction to the newborn. Moss found that the greatest number of concerns were found in

women: under 20 years old, having one other child at home, being in the lower socioeconomic class, bottle-feeding, not completing high school or completed graduate work, having attended prenatal class with more than one pregnancy or never attending a class, and delivering a male infant. Hiser's (1987) study differed from Moss's in time (10-14 days postpartum), sample (20 multiparas), and setting (at home). Hiser, like Moss, found that the most important concern for mothers 10-14 days postpartum was family. When the participants were asked to name the most important concern at the time of the interview, 50% reported concerns related to the newborn. This was inconsistent to the actual assortment of card-sorting where family items appeared to be most important. The authors' response was that perhaps this was a response set bias of the participants who thought it was more socially desirable to tell the researcher they were most concerned about their newborns.

Sumner and Fritsch (1977) analyzed telephone calls from parents regarding concerns and information needs for the first six weeks at home. From 270 calls made to the health care facility, 38% were from multiparas and 62% were from primiparas. The calls were monitored in relationship to three variables: infant's age, infant's gender, and mother's parity. The infant's age had a dramatic effect on the number of calls made. The infant's age also had an effect on the content of the question. In general, the questions

were most frequent for the first two weeks of life and then dropped sharply at six weeks. One exception was calls relating to sleep behavior; these questions increased to the fourth week and then sharply decreased.

Generally gender made no difference in the parents call rate with the progression of time. For both sexes, the number of calls increased in the second week of life and then steadily declined. When examining the rate of questioning, parents of male infants had more questions in the first week of life. From the first through the sixth week the number of questions asked by parents were similar for both sexes. The authors pointed out that the difference in calls were related to feeding and breastfeeding. This increase in questions made the investigators wonder if there was a connection between breastfeeding a male infant and the mother's sexual role identification at this period of time.

Parity influenced the number of calls. Primiparas called about three and one half times more than multiparas, however, multiparas asked more questions per call. Primiparas had more questions about feeding in the first week, and they seemed to ask more questions in every category except sleeping and crying than multiparas. One interesting point made by the authors was that the highest call rates occurred in the first weeks postpartum when there is the least amount of support from health care sources.

The method of feeding may be related to concern scores. Fillmore and Taylor (1976) interviewed 52 primiparous women three to five days after the birth of their infants. Differences occurred between women who breastfed, bottle fed, or used both methods to feed their infants. The investigators found that breastfeeding mothers had lower concern scores related to non-feeding issues, such as, crying, elimination, routine care, and sleeping than bottle feeding mothers. Bottle feeding mothers had higher concern scores related to feeding issues than breastfeeding mothers, but lower scores than mothers who chose to breast and bottle feed their infants.

Graef et al. (1988) studied the concerns of 32 breastfeeding mothers through telephone conversations over a one month period. Seventy-eight percent of the women were primiparas. Of the 32 mothers, 97% expressed concerns regarding their infants. Areas related to infant concerns were identified as physical, feeding, and behavior. For areas relating to the mother, 81% reported physical concerns and 69% reported concerns of an emotional nature, such as, fatigue, feelings of being overwhelmed, and lack of sleep. Only 19% of the mothers reported concerns related to family or paternal matters. This finding is inconsistent with the studies of Moss (1981) and Gruis (1977), but consistent with the study by Bull (1981).

In the first three months postpartum, Pridham, Hansen, Bradley, and Heighway (1982) studied 38 primiparas and 24 multiparas with their newborns. Daily logs were kept by the mothers for the first 91 days of the newborns lives. Nine thousand eight hundred issues as well as help used in problem solving were identified by the mothers. Mothers' described their days by recording stressors and supports in their lives on that particular day. The investigators found that time decreases the number of issues reported. This is consistent with Bull's (1981) and Sumner and Fritsch's (1977) studies. In Pridham's et al (1982) study, five main issues (development, baby care, parenting, stressful events, and illness) significantly decreased from the first to the third month ($p = .03$). From the issues reported, 91.5% concerned the infant, 6.1% concerned the mother, and 2.4% concerned family relationships. Sources of help were sought 42% of the time for illness; family physician and nurses were the ones most often consulted. Parity did not significantly alter the number of issues reported, however, multiparas identified more parenting issues than primiparas $F(1, 58) = 4.27, p < .40$. On the average, primiparas sought help 1.5 times as often as multiparas. The investigators concluded that the findings of this study were congruent with what was expected. For example, one would expect that multiparas would have more issues concerning parenting, because of other family relationships involved. Also,

multiparas would tend to call less because of practical experience in handling issues in the past and expectation about themselves as parents. An unexpected finding was that regardless of parity, as the number of issues concerning the infant increased, the extent to which outside help was sought increased.

The focus of previous literature was on postpartum mothers' concerns. Today the focus is on the information needs of the postpartum mother. Two studies, Degenhart-Leskosky (1989) and Howard and Sater (1985) focused on the education needs of adolescent mothers. Howard and Sater (1985) looked at what 60 adolescent primiparas needed to know about self-care and infant care during the first six weeks postpartum. Data was gathered by a structured questionnaire developed by the investigators. Responses were placed into four categories (infant's medical needs; infant's daily physical needs; psychosocial needs of the mothers and infants; and mother's physical care) based on which information mothers considered most important. The findings of the study revealed that care of the infant was the primary concern of young mothers in the postpartum period. Responses from the four categories were rank ordered to show which information was of highest importance to the mothers. Eighty-six percent of the mothers thought "how to care for a sick baby" was the most important medical need for the infant. Eighty-nine percent thought

"protecting the baby from accidents" was the most important physical need. Ninety percent of the mothers thought "ways to make the baby feel happy and loved" was the most important psychosocial need of the mother and infant. Seventy-six percent thought "care of the episiotomy" was the most important information concerning the mother's physical needs.

In Degenhart-Leskosky's (1989) research the Howard and Sater questionnaire was used to test differences in the information needs between 22 adolescent and 30 nonadolescent primiparous mothers in regard to self-care and infant care. Study findings indicated that: (1) Adolescent mothers have greater perceived needs for information about infants' medical care than nonadolescent mothers $t(50) = 2.07, p < .025$. (2) Adolescent mothers have greater information need scores on psychological and infant care parameters than nonadolescent mothers. (3) Nonadolescent mothers have significantly greater perceived needs for self-care and infant care $t(50) = 1.87, p < .05$. This finding was consistent with the Howard and Sater (1985) study.

Information needs are important to know because they help to identify what mothers concerns may be. In a study by Davis, Bruckner, and MacMullen (1989) a questionnaire was given to 117 mothers over a four month period to identify which care topics received the highest priority for age and parity groups. Fifty-six percent of the women were

multiparas, 20% were in their teens, 61% were in their 20's, and 19% were in their 30's. Teens had the highest priorities for postpartum complication, feeding the infant, care of the stitches and episiotomy, infant safety and illness, and exercise. Most of the teens (71%) were primiparas. The maternal care topic of highest priority for all groups was postpartum complications; 67% of the mothers rated it as very important and 23% of mothers rated it as important. Care of the stitches and episiotomy was the main physiologic care topic for all mothers; 59% thought it was very important and 39% thought it was important. The infant care topic of highest priority was infant illness; 68% thought it was very important and 21% thought it was important. Ninety-five percent of all mothers thought "feeding the baby" was a high priority. Both mothers in their 20's and 30's chose this topic most often. The topics "shape-up exercises" (78%) and "introducing the baby into the family" (62%) were seen as less important in this study as compared to (Bull, 1981; Gruis, 1977; and Hiser, 1987). The main areas of teaching priorities were rated from one to eleven percentage points higher by primiparas than by multiparas.

This literature review revealed that mothers are concerned about themselves and their infants during the first few weeks postpartum. The greatest number of concerns occur in the first few weeks and gradually decrease over

time. Primiparas generally have more concerns postpartum than multiparas. Multiparas are often viewed as having more experience, but may initially have more concerns about taking care of an infant of a different gender. Classes in the antepartum or postpartum period affect some area of concerns such as infant crying and care, but do not affect other areas, such as infant feeding.

Preparedness. Being prepared for self-care and infant care after a 24 hour stay means that one has the knowledge, technical skills, and material, financial, and human resources necessary to accomplish self-care (Lawton, 1992). Froman and Owen (1990) discussed knowledge in relationship to information needed for task performance. They connected knowledge to self-efficacy which plays an important part in one's knowledge, motivation, and ability to perform a task. "It is the sense of confidence that a behavior can be successfully organized and completed" (p. 248). Mothers' report they need to perform certain tasks in order to care for themselves and their infants. Four major influences; previous task performances, observation of others' performance, persuasion in the form of encouragement and verbal support, and being aware of the physiological state in the postpartum period form a mothers' perception of self-efficacy or confidence in self-care tasks. In Froman and Owen's (1990) study of 200 mothers and the nurses caring for them, a stronger self-efficacy perception was shown by

mothers who had cared for infants previously. Like the studies of Moss (1981) and Sumner and Fritsch (1977) this study found significant correlations between gender of the infant and overall self-efficacy and bathing self-efficacy, i.e., mothers with female infants showed greater self-confidence in care taking abilities. Using a 2 x 2 ANOVA for parity and gender, primiparous mothers, in this study, showed the least amount of self-confidence for bathing an infant ($p = .02$).

Summary and Implications for this Study

Orem's Self-Care Deficit Theory was used to give direction for nursing in preparing mothers for self-care when discharged from the hospital in 24 hours after the birth of their infant. There is a need for more research in this area so that nurses can provide more support to the mother who is discharged from the hospital before she has a chance to assimilate all the information offered during her short hospital stay. The literature has offered some alternatives on how nurses can help, but first mother's concerns and ideas of what it means to be prepared for self-care must be investigated so that nurses can add this information to their body of knowledge and develop programs to assist the mother and her family at home. Ways to help, such as, follow-up home visits, telephone calls, and support groups have been suggested by (Hampson, 1989; Lemmer, 1987; Siegel, 1992; Tegtmeier & Elsea, 1984).

Research Question

The research question formulated for this study comes from two basic ideas. The first idea stems from Orem's theory of self-care which suggests that experience enhances the self-care agency. The second idea stems from the literature which points out to differences in information needed by primiparas and multiparas.

Question:

What differences are there in information needed and perceptions of preparation for self-care and infant care between primiparas and multiparas with short term hospital stays?

Definition of Terms

Multipara. A woman who has delivered viable infant/s on two or more occasions.

Perception. The personal internal experience of the environment which is processed and received through the senses; a way of sensing interpreting, and comprehending the world (Harber, Hoskins, Lach, & Sideleau, 1987, p. 1240).

Preparedness (being prepared). "An individual has the necessary knowledge, technical skills, and material, financial and human resources to accomplish self-care" (Lawton, 1992, p. 21). Self-care also includes care of the infant in this study.

Primipara. A woman who has delivered her first viable infant.

Self-Care. "The practice of activities that individuals initiate and perform on their own behalf in maintaining life, health, and well being" (Orem, 1991, p. 117). Self-care, for this study, will also include infant care; what Orem calls dependent care.

Self-Care Agency. "Is the capability of adults and maturing adolescents to discover factors that must be controlled or managed to regulate their own functioning and development, to decide what can and should be done to meet their therapeutic self-care demands, and to perform the care measures designed to meet their self-care requisites over time" (Orem, 1991, p. 65).

Self-Care Requisites. "The required actions through which individuals regulate factors that affect their human functioning and development. Care requisites may be met through self-care, dependent care, or nursing. Self-care requisites, when formulated, express desired results, the goal of self-care" (Orem, 1991, p. 38).

Short Term Hospital Stay. A program in which the patient is to be discharged from the hospital before or by 24 hours post delivery.

CHAPTER 3
METHODOLOGY

Design

A two group comparative design, employing a survey, was used to identify postpartum women's information needs and their perceptions of being prepared for self-care and infant care following a short-term (24 hour or less) hospital stay. A self administered questionnaire was used to gather all data.

One advantage of using a self administered questionnaire for this study was the possibility of complete anonymity. This may be crucial to some women who do not want to admit they are not prepared to care for themselves or their infant. Another advantage was the reduction of interviewer bias. Since there was no visual or verbal contact between researcher and respondent, there was no influence on the subjects' responses to the questions on the questionnaire.

Sample and Setting

This study was conducted at an acute care hospital in western Michigan. The hospital has approximately 3,500 to 4,200 deliveries per year. The hospital had short-term and

long-term stay patients. The convenience sample consisted of multiparas and primiparas who met the designated criteria for mother and infant selection. Criteria for the mother's selection consisted of: no history of infertility, 20 years age or older, normal spontaneous vaginal delivery, temperature less than 38.1 degrees celsius for the labor, delivery, and postpartum period, blood pressure below 140/90 for the postpartum course, no postpartal hemorrhage, and able to speak and read english. Criteria for the infant's selection was: 38-41 weeks gestation, 2500-4000 grams in weight, documented normal physical exam, able to stabilize temperature after delivery and maintain normal temperature during the postpartum period, demonstrated ability to feed (i.e. sucking and swallowing mechanisms intact), and a normal elimination pattern. All mother-infant dyads on the respective postpartum units who stayed for 24 hours or less and meet the selection criteria were asked to participate in the study. Subjects for the study were individually contacted by the researcher or an assigned postpartum nurse before discharge from the hospital. Subjects were informed of their rights and that strict confidentiality would be maintained.

Instrument

Assessment of postpartum women's information needs and preparedness for self-care and infant care were made using a 71 item questionnaire. The original questionnaire was

developed by Howard and Sater (1985) for adolescents and contained 54 health-education items pertaining to the information needs of mothers. With permission, this study used a revision of the Howard and Sater instrument from the Degenhart-Leskosky's (1989) study. Degenhart-Leskosky revised the original instrument by taking out phrases, such as, "single parenting" and "teenage mother" so as to include both adolescent and nonadolescent mothers. The Degenhart-Leskosky instrument assessed mother's information needs pertaining to the mother's physical care, mother-infant psychosocial needs, infant's physical care, and infant's medical needs. The questionnaire consisted of three sections. The first section contained 23 items related to information about physical and psychosocial care such as, body changes during delivery, nutrition, medical check-ups after delivery, contraception, and emotional responses to parenthood (i. e. how to be a good parent, how to manage time while caring for the infant). The second section contained 32 items relating to the information needs about the infant's physical, psychosocial, and medical care requirements. Specific topics included the infant's physical appearance, daily infant care, emotional stability of the infant, and medical needs to promote a healthy infant. Responses to the questionnaire were originally rated on a four point scale ranging from "very important to

"not important. The third section asked 19 questions about demographic and obstetric information.

Howard and Sater consulted educators knowledgeable in infant care and teen parenting to ensure validity of the instrument. Reliability of the instrument was established by pretesting the instrument with a small group of mothers to identify problems with content, terminology, or test design. No alpha coefficients were reported by Howard and Sater. Degenhart-Leskosky found an acceptable level of instrument reliability in her study. The following alpha coefficients were reported: .78 for the mothers' physical care, .79 for mother-infant psychosocial needs, .89 for infants' physical care, and .76 for infants' medical needs.

The present investigator revised the Degenhart-Leskosky instrument by changing the response options to a five point scale which rated preparedness instead of importance. The scale goes from "very prepared" to "not at all prepared". A fourth section was also added to the questionnaire. Subjects were asked two questions about how well prepared they felt they were for self-care and infant care overall using the same five point rating scale. Since response options were modified from the original tool [(very important to not at all important) to (very well prepared to not at all prepared)], it was felt that reliability could not be assumed. Therefore, a small pilot study, involving eight mothers and four staff, was conducted to check for

clarity of instructions and information presented in the instrument. Revisions were made to clarify the directions.

Procedure

Approval from appropriate human subjects review committees at the university and hospitals were obtained prior to the implementation of this research project. Before beginning data collection, the investigator met with the head nurses (coordinators) and the staff on the postpartum unit to inform them about the study. Each day, mothers who met the appropriate criteria were asked to participate in the study by the researcher or a postpartum nurse who had been trained by the researcher on how to screen mothers and infants as perspective participants for the research. The study was explained to each participant (Appendix A) and informed consent was obtained (Appendix B). If a mother decided to participate in the study, she was given a packet. This packet contained a cover letter (Appendix C) that identified the investigator, described the purpose of the research, explained the voluntary nature of participation, and gave the specific instructions for completing the questionnaire. Mothers were encouraged to check any item they needed information on during this pregnancy. Each mother received verbal and written instructions on how to fill the survey out and the approximate time it would take to complete the questionnaire (20 minutes). Each mother was instructed not to put her

name on the questionnaire so as to maintain anonymity of her responses. All mothers were asked to complete the questionnaire, place it back in the envelope provided, and return it to the researcher or their postpartum nurse before being discharged from the hospital.

CHAPTER 4

DATA ANALYSIS

Information needs and perceptions of preparedness for a sample of 58 women who had given birth to healthy infants were analyzed descriptively. Classification of the study groups were based on parity. Data obtained were ordinal in nature. The data were analyzed using the SPSS/PC + Studentware Plus Statistics package. Mean scores were obtained from questionnaire items within each of the three sections (a) mother's physical and psychological care requirements, (b) the infant's physical, psychological, and medical care requirements, and (c) mother's preparedness for self and infant care.

Characteristics of the Subjects

The sample consisted of 62 postpartum women. Four of the respondents failed to answer the question on parity and were not included in subgroup comparisons. The sample contained 22 primiparas ranging in age from 20-36 (M = 27) and 36 multiparas ranging in age from 20-35 (M = 28.5). Ninety percent of the mothers were Caucasian and 82% were married. Sixty one percent had a household income of \$30,000 per year or more. The top two occupations women

were employed in were business (n = 13) and health care (n = 12). Seventeen (28%) of the women were housewives. Fifty-three percent of the sample had female infants. The major sources where mothers got information on how to care for their baby can be seen in Table 1.

Table 1

Source of Information

Source	Primiparas n = 22		Multiparas n = 36	
	n	Percent	n	Percent
Reading Books	19	86	19	53
Talking to Others	16	73	15	42
Prenatal Classes	16	73	13	36
Dr's Office	12	55	11	31
Caring for Siblings	6	27	15	42
Babysitting	5	23	15	42

Over half of the sample (51%) chose to breast feed their infants (see Table 2).

Information Needs and Preparedness

Women varied widely in types of information needed (see Table 3). Over half of the women needed information on infant care related topics such as, cord care (54%) and feeding methods (52%). Greater than 40% needed information on self-care topics related to care of the episiotomy (45%) and type, amount, and duration of vaginal flow (40%).

Table 2

Feeding Plan

Source	Primipara n = 22		Multipara n = 35	
	n	Percent	n	Percent
Breast Feeding	8	36	21	60
Bottle Feeding	5	23	8	23
combination of Breast and Bottle	17	9	41	6
	22	100	35	100

Table 3

Most Commonly Needed Information

Area of Need	n	Percent
Care of the Cord	34	54
Breast and Bottle Feeding	32	52
Care of the Episiotomy	28	45
How Often to Feed the Baby	27	44
Care of the Breasts	27	44
Know when Baby is Sick	27	44
Obtain Birth Certificate	26	42
Type, amount, and Duration of Vaginal Flow	25	40

Preparedness was measured on a five point scale from very well prepared to not at all prepared. Categories were collapsed into well prepared and less well prepared for ease of computation. Very well prepared and well prepared became (well prepared). Moderately prepared, slightly prepared, and not at all prepared became (less prepared) (see Table 4). The areas women felt most prepared in after discharge teaching were care of the cord (79%) and feeding method (72%). Overall, women felt well to very well prepared for self-care (87%) and for infant care (78%).

Table 4

Perceptions of Preparedness in Areas Where Information Was Needed

Area	Preparation: Well			Less Well	
	*n	n	Percent	n	Percent
Care of Cord	34	27	79	7	21
Feeding Plan	32	23	72	9	28
Care of Episiotomy	28	18	64	10	36
Often to Feed	27	23	85	4	15
Care of Breasts	27	20	74	7	26
Baby Illness	27	14	52	13	48
Birth Certificate	26	15	58	11	42
Vaginal Flow	25	18	72	7	28

*Total number of mothers needing this particular information.

Primipara and Multipara Comparison

Primiparas and multiparas were compared to see if there were any statistically significant differences between the groups in relationship to their information needs and their preparedness for self and infant care. Items were rank ordered according to frequency of need. Only those items, feeding information, and care of the cord appeared in the five areas of information needed for both groups. Those items which had the greatest variation in needs and preparation were examined using Mann-Whitney U and one tailed t-tests. The items of information which primiparas and multiparas felt they needed most can be seen in Table 5.

The questionnaire contained three sections. The first section consisted of 23 health education items that assessed the mother's need for information about her physical and psychological care requirements. The second section consisted of 32 health education items that assessed the mother's information needs on the physical, psychological, and medical care requirements of her infant. The third section consisted of two items that assessed the mother's preparedness for self and infant care. The mothers' self and infant care information needs were subdivided into five categories. The number of items a mother checked within a specific needs category were counted. Then, the mean number of items checked within that category were compared to see

if there were differences between primiparas and multiparas in each specific need category. Total category scores were then compared for primiparas and multiparas using a one tailed t-test with a significance of .05 (see Table 6). In all categories, primiparas needed more information than multiparas and the amount of information needed was significantly different for mother's and baby's physical needs, baby's medical needs, and mother's emotional needs.

Those information items needed by the greatest number of subjects were examined in relation to perceived preparation. Mann-Whitney U tests were run on those specific items that demonstrated the greatest variation in perceived preparation between primiparas and multiparas (see Table 5). There were no statistical differences at the $p = .05$ level. Overall the mothers' feeling of preparedness did show significant differences in two areas: (a) preparation for self-care ($U 256.5, p < .04$) (b) preparation for infant care, ($U 222, p < .01$). Multiparas perceived themselves to be more prepared in both instances.

From the results, it seems that mothers have needs in different areas based on parity. There were variations in needs, but no statistical differences between the groups for any particular item of preparation or information needed. On the whole, both groups felt well to very well prepared in most of the areas where they needed information.

Table 5

Items of Information Needed Most by Primiparas and
Multiparas

<u>Primiparas (n = 22)</u>		
<u>Items</u>	<u>n</u>	<u>Percent</u>
Information on Breast and Bottle Feeding	17	77
Care of the Episiotomy	16	73
Care of the Cord	15	68
How to Care For a Sick Baby	15	68
Type, Amount, and Duration of Vaginal Flow after Delivery	13	59

<u>Multiparas (n = 36)</u>		
<u>Item</u>	<u>n</u>	<u>Percent</u>
Care of the Cord	16	44
Care of the Circumcision	13	36
How to Obtain a Birth Certificate	13	36
Care of the Breasts	13	36
Information on Breast and Bottle Feeding	12	33

Table 6

Comparison of Parity Groups According to Information Needed Within Categories of Care.

<u>Category:</u>				<u>one tailed</u>	
<u>Group</u>	<u>n</u>	<u>*M</u>	<u>SD</u>	<u>t</u>	<u>p</u>
<u>Mother's Physical Needs</u>					
Primiparas	22	7.4	4.5	2.19	.017
Multiparas	36	4.6	4.9		
<u>Mother's Emotional Needs</u>					
Primiparas	22	4.0	3.5	1.77	.041
Multiparas	36	2.4	3.3		
<u>Baby's Physical Needs</u>					
Primiparas	22	11.0	6.4	2.69	.005
Multiparas	36	5.9	7.4		
<u>Baby's Medical Needs</u>					
Primiparas	22	3.3	1.8	2.54	.007
Multiparas	36	1.8	2.3		
<u>Baby's Psychological Needs</u>					
Primiparas	22	1.8	2.1	1.31	.098
Multiparas	36	1.1	1.8		
<u>Total Information Needs</u>					
Primiparas	22	27.5	16.9	2.41	.010
Multiparas	36	15.8	18.7		

*The number of items within a category a mother checked.

CHAPTER 5
DISCUSSION

Discussion

Self and infant care are a challenge for many new mothers. With the advent of short-term hospital stay mothers are being discharged from the hospital before they have time to assimilate all the information they need to know. Some studies have pointed out that early discharge from the hospital has no adverse affects on the mother or infant (Norr & Nacion, 1987; Lemmer, 1987). Other studies have pointed out that mothers have various information needs (Degenhart-Leskosky, 1989; Howard & Slater, 1985). This study looked at both information needs and how well prepared mothers feel for self and infant care after a short term (24 hour) hospital stay.

Findings of this study show that mothers have information needs in specific areas and feel more prepared in some areas of infant care and self-care than others. Nurses can help develop adequate self-care behaviors through teaching and reinforcing behaviors specific to mothering and self-care tasks. Mothers will maintain and/or attain self-care abilities and feel more prepared when they are

motivated to meet the learning needs they perceive to be important. Nurses can help mothers meet their education needs by providing individualized and group focused education programs (Degenhart-Leskosky, 1989).

Orem's theory of self-care (1991), offers a framework for interaction between the nurse and the client in the maternity setting. A mother uses self-care actions to acquire the knowledge and skills necessary to care for herself and her infant. When a mother needs information about a specific area of self-care, she is said to have a self-care deficit. Self-care deficits can be addressed through acquiring more knowledge and/or assistance through a helper (nurse). Nurses can assist new mothers to attain self-care skills by providing support, guidance, a developmental environment, and teaching. Teaching is the helping method that assists new mothers to attain knowledge about specific areas where they may be lacking information needed to perform self and infant care. Nurses can also provide support and guidance to the mother so that she may feel more prepared for self-care behaviors.

It might be expected that primiparas would be less prepared and need more information, due to anxiety and/or a lack of experience caring for a new infant. Sumner and Fritsch's (1977), study found that primiparas called the health facility three and one half times more frequently than multiparas. Other literature revealed that primiparas

have a greater number of concerns and need for information than multiparas (Degenhart-Leskosky, 1989; Froman and Owen, 1990; Lemmer, 1987; Sumner and Fritsch, 1977). In the present study, the majority of primiparas perceived themselves to be well prepared to care for their infant (67%) and themselves (87%). A greater percentage of multiparas, believed themselves to be well prepared for infant care 83% and for self-care 94%. Although most subjects considered themselves well prepared, multiparas were significantly more prepared for self-care ($U = 256.5, p < .04$). The outcome of preparedness showed statistical significance for self ($U = 256.5, p < .04$) and infant care ($U = 222, p < .01$). This difference is not unexpected given the multiparas greater experience in self and infant care. Anxiety and/or lack of experience in caring for the infant may have contributed to one third of the primiparas perceiving themselves to be less than well prepared to care for their infants.

The one similarity between this study and other studies is that mothers all have a high need for information about care of the episiotomy. In Howard and Sater's (1985) study 76% of primiparas wanted information about the care of the episiotomy. In Davis, Bruckner, and MacMullen's (1989) study, 59% of all mothers thought information on this topic was very important and 39% thought it was important. In

this study 73% of the primiparas needed information on this topic.

There was one difference between this study and Degenhart-Leskosky's (1989) study. This study found significant differences in all the educational needs categories except baby's psychosocial needs. In Degenhart-Leskosky's (1989) study no significant differences were found between groups regarding the psychosocial needs of the mothers and infants or the infants' physical care needs.

Limitations

This study used a small (N = 62), non-random sample; therefore, the findings cannot be generalized to other populations. The homogeneity of the sample (primarily Caucasian and middle class) was also a limiting factor. Reliability was not tested on the revised instrument. The time frame of data collection was not optimal, because of all the information and procedures mothers have to do before discharge. Uncontrolled factors such as, visitors, interruptions by the staff, and the mothers' frame of physical and emotional well being may have affected some responses to the questionnaire.

Implications for Nursing

The need for information among mothers who are discharged from the maternity unit is great. Nurses need to be aware of the impact information has on a new mother's ability to care for herself and her infant. Therefore, it

is important that nurses individualize information given and coordinate follow-up care so that mothers can function well after they leave the hospital.

The findings of this study indicate that the mothers have a variety of needs and preparedness based on their parity. Primiparas needed to know more about the physical care for the mother and infant than multiparas. Primiparas also needed to know basic information on how to obtain a birth certificate, how to manage time better now that they have another member in the family, and where they can get help when problems develop.

Nurses response to mothers' individualized information needs and perceptions of preparedness need to be addressed so that discharge plans and programs can be developed so that the outcomes of being informed and prepared to care for the self and infant can be attained. Various methods of being knowledgeable and prepared have been discussed in the literature (Hampson, 1989; Lemmer, 1987; Siegel, 1992; Tegtmeir & Elsea, 1984). Some of the ways nurses can help new mothers to be knowledgeable and prepared are home visits, telephone calls, postpartum discharge classes, referrals to other agencies and support groups, take home video tapes on self and infant care procedures such as, bathing, medical care, etc, and booklets and pamphlets.

Further Research

This study offered a small perspective on the trends in maternity care and short-term hospital stay. With the advent of cost containment and short stay, it would be beneficial to do further research on the impact age, education, income, and assistance with baby care have on the information and preparedness needs of new mothers and health care system. It would be useful to replicate this study using a population of adolescents so that nurses could determine if different discharge planning would be needed to satisfy this population's needs.

Conclusion

Although information from this study cannot be generalized to all new mothers, it does indicate a need for nurses to assess each individual mother in regard to the information they need about self and infant care. Even though respondents demonstrated some commonalities in the type of information they needed, there was enough diversity to reinforce the concept that nurses need to individualize all the teaching they provide to a new mother. From the literature, many alternative teaching methods and types of support are also available to assist the new mother in preparing for self and infant care.

APPENDICES

Appendix A

SCRIPT

Good morning/evening Ms/Mrs (patient's name) .

My name is (nurse or researcher's name) . I would like to know if you would be willing to participate in a research study to help nurses identify what information new mothers need to know before going home from the hospital after a 24 hour stay. Nurses are also interested in knowing how well prepared you feel you are to care for yourself and your new baby. Blodgett Memorial Medical Center has given me permission to contact all mothers who are discharged from this unit within 24 hours after the birth of their baby for participation in this study.

Your participation is voluntary and would involve filling out a questionnaire that will take 20-30 minutes of your time. The information you provide will be helpful for nursing to assist future mothers in having the appropriate information they need in order to care for themselves and their new baby after a 24 hour hospital stay.

If YES - Here is a packet that contains a brief description about the survey, a consent form for you to sign, the questionnaire, and an envelope for you to put the questionnaire in when it is completed. Please put your call light on when you have completed the questionnaire. Your nurse or I will come to pick the envelop up.

If NO - Thank you for your time and consideration.

The nurse or I will check back with the mother in about one hour to see if she has finished the questionnaire.

Appendix B

Informed Consent

I voluntarily agree to participate in a nursing research study that will evaluate how well prepared I feel to care for myself and my baby when I get home. By answering the questions on the questionnaire, I will relate what my information needs are in regards to caring for myself and my new baby.

I understand that it will take about 20-30 minutes to complete the questionnaire. I further understand that the information I provide will be valuable to nursing to assist future mothers in a smooth transition to home and family life. There will be no direct benefits to me at this time.

I further understand that:

1. Any information I provide will be confidential, and that any information used from this study will be reported in a group manner so as to maintain complete anonymity.
2. I am free to withdraw from this study at any time. My withdrawal will not affect my discharge plans or future care.
3. No risks, discomfort, or additional expenses will result from my participation. If any problems are identified during the study the researcher will not intervene but will recommend an appropriate referral.
4. Donna Paulsen, a graduate student from Grand Valley State University is conducting this study. Any questions I have I may direct to her by calling (810) 231-1109.

I acknowledge that I have read and understand the above information.

Date

Your Signature

Witness

Appendix C

MOTHER BABY SURVEY

Dear new mother:

Congratulations on the birth of your new infant. I am a graduate nursing student from Grand Valley State University. I am doing a study to find out what type of information new mothers' need in order to care for themselves and their baby. I would also like to know how well prepared you feel you are to care for yourself and your baby from previous learning experiences and any information the nursing staff gave you prior to discharge.

Please fill out the survey according to the directions on the various pages. I wish to inform you that there are no right or wrong answers. Only fill in those areas where you thought you needed this information; then go back to the information you needed and tell me how well prepared you thought you were after the nurse talked to you about how to care for yourself and your baby. All information you provide will be strictly confidential. You have the right to withdraw from the study at any time. The findings of this study will be reported in a group fashion and will not identify you in any way. The information obtained from this study will be used to improve the discharge preparation for future mothers who will be going home from the hospital in 24 hours or less after the birth of their baby.

Please return the completed survey three to five days after the birth of your baby. Place the survey in the stamped envelope and mail it to the researcher. If you feel you have any reason to contact the researcher please contact Donna Paulsen at (616) 457-4292.

Thank you for your participation.

8. What is your average household income?
 1. Less than \$4,999
 2. \$5,000-\$9,999
 3. \$10,000-\$29,999
 4. \$30,000-\$49,999
 5. More than \$50,000

9. Who will assist you with the baby at home?
 1. Husband
 2. Boyfriend
 3. Mother
 4. Mother-in-law
 5. Other relatives
 6. Other friends
 7. I have no other help

10. Who will you and the baby live with?
 1. Husband
 2. Boyfriend
 3. Mother
 4. Mother-in-law
 5. Other relatives
 6. Other friends
 7. The baby and I will live alone

11. Where did you get information on how to care for your baby? (Circle all that apply)
 1. Prenatal classes
 2. Reading books and pamphlets
 3. Talking to others
 4. Babysitting experience
 5. Family experience (caring for brothers and sisters)
 6. Clinic
 7. Doctors office
 8. I do not have any information on how to care for my baby

12. Is this you first baby?
 1. Yes
 2. No

13. What is the sex of this baby?
 1. Male
 2. Female

14. What is your planned preference for feeding you baby?
 1. Breast
 2. Bottle
 3. Breast and bottle

15. How many other children do you now have? _____

NEW MOTHER QUESTIONNAIRE

New mothers have different information needs about how to care for themselves and their infants.

1. Please go through the survey and check the box (I needed this Information) for those items you felt you needed information on with this pregnancy.
2. Now go back to ONLY THOSE BOXES YOU CHECKED and rate (by checking the appropriate box) how well prepared you feel you are from the information given to you by the nursing staff about how to care for yourself and your baby. (SEE EXAMPLE BELOW) Please answer questions on both sides of the page.
3. Please do not write in the coding boxes; they will be used to place information into the computer.

I needed this Info.		<u>Very Well Prepared</u>	<u>Well Prepared</u>	<u>Moderately Prepared</u>	<u>Slightly Prepared</u>	<u>Not at All Prepared</u>	Please do not write in this space
	1. What happened to your body during delivery						
X	2. Type, amount, and duration of discharge (flow) after delivery						
	3. When to expect your period to return						
	4. Care of the breasts						
X	5. Care of stitches (episiotomy)						

NEW MOTHER QUESTIONNAIRE

New mothers have different information needs about how to care for themselves and their infants.

1. Please go through the survey and check the box (I needed this Information) for those items you felt you needed information on with this pregnancy.
2. Now go back to ONLY THOSE BOXES YOU CHECKED and rate (by checking the appropriate box) how well prepared you feel you are from the information given to you by the nursing staff about how to care for yourself and your baby. (SEE EXAMPLE BELOW) Please answer questions on both sides of the page.
3. Please do not write in the coding boxes; they will be used to place information into the computer.

I needed this Info.		<u>Very Well Prepared</u>	<u>Well Prepared</u>	<u>Moderately Prepared</u>	<u>Slightly Prepared</u>	<u>Not at All Prepared</u>	Please do not write in this space
	1. What happened to your body during delivery						
	2. Type, amount, and duration of discharge (flow) after delivery						
	3. When to expect your period to return						
	4. Care of the breasts						
	5. Care of stitches (episiotomy)						

I needed this Info.		<u>Very Well Prepared</u>	<u>Well Prepared</u>	<u>Moderately Prepared</u>	<u>Slightly Prepared</u>	<u>Not at All Prepared</u>	Please do not write in this space
	6. Stretch marks						
	7. Constipation						
	8. Medical checkups after delivery						
	9. How soon to restart sexual relations						
	10. Birth control						
	11. How soon another pregnancy can occur						
	12. Exercises to help "get back into shape"						
	13. Proper eating for the mother						
	14. Sleep and rest needs of the new mother						
	15. Emotional reactions to being a new parent						
	16. Depressed feelings, "Postpartum blues"						

I needed this Info.		<u>Very Well Prepared</u>	<u>Well Prepared</u>	<u>Moderately Prepared</u>	<u>Slightly Prepared</u>	<u>Not at All Prepared</u>	Please do not write in this space
	17. What it's really like being a parent						
	18. Problems other mothers have						
	19. How your life with the baby's father is affected by the baby's birth						
	20. Information about how your life with other people is affected by the baby's birth (parents, in-laws, friends)						
	21. How to get the baby's birth certificate						
	22. How to be a good parent						
	23. How to best manage your time with a new baby to care for						

ID _____

How important was it for you as a new mother to have the following information about your baby now that the baby is born?

I needed this Info.		<u>Very Well Prepared</u>	<u>Well Prepared</u>	<u>Moderately Prepared</u>	<u>Slightly Prepared</u>	<u>Not at All Prepared</u>	Please do not write in this space
	1. What the newborn baby will look like						
	2. How to feed the baby						
	3. Information about bottle/breast feeding						
	4. Preparing bottles						
	5. How often to feed the baby						
	6. Burping the baby						
	7. How to hold the baby						
	8. Equipment needed for a young baby (crib, bottles, clothes)						
	9. Bathing the baby						
	10. Care of the baby's cord/navel						

65

I needed this Info.		Very Well Prepared	Well Prepared	Moderately Prepared	Slightly Prepared	Not at All Prepared	Please do not write in this space
	11. Care of the baby's circumcision						
	12. Diaper care						
	13. How to diaper a baby						
	14. What to do when a baby cries						
	15. Colic (baby's stomach aches)						
	16. Sleeping habits of young babies						
	17. Clipping baby's nails						
	18. Cradle cap						
	19. Constipation and diarrhea						
	20. Diaper rashes						
	21. Baby's laundry (diapers, sheets, clothes)						
	22. How to take baby's temperature						
	23. When to start immunizations (baby shots)						

I needed this Info.		<u>Very Well Prepared</u>	<u>Well Prepared</u>	<u>Moderately Prepared</u>	<u>Slightly Prepared</u>	<u>Not at All Prepared</u>	Please do not write in this space
	24. How to know when baby is sick						
	25. Medical care for baby						
	26. How to take care of a sick baby						
	27. Protecting baby from accidents						
	28. Ways to make baby feel happy and loved						
	29. Spoiling the baby						
	30. What to expect that your baby can do in the first few weeks of life						
	31. Community agencies and resources (public health clinics, food programs, etc)						
	32. How to choose a babysitter:						

Considering the total care you received in the hospital, how well prepared did you feel to care for yourself and your infant?

	<u>Very Well Prepared</u>	<u>Well Prepared</u>	<u>Moderately Prepared</u>	<u>Slightly Prepared</u>	<u>Not at All Prepared</u>	Please do not write in this space
1. Yourself						
2. Your Infant						

Thank you for filling out the questionnaire. It would be helpful to know if there is any other information that you wished you had received.

ABOUT YOURSELF:

ABOUT YOUR BABY:

Appendix E

Permission to Use Tool

Permission is granted to Donna Paulsen to utilize the structured questionnaire that has been developed to determine the educational needs of new mothers. The questionnaire may be altered if necessary to make it specific to her study population.


Suzanne Degenhart-Leskosky

February 8, 1993

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