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**Obstetric Patient Satisfaction with Discharge Teaching
in Relation to Length of Hospitalization,
Parity, and Type of Delivery
Among Multiple Institutions**

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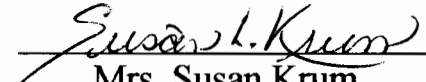
Carmell L. Murray

Submitted to the Faculty of Lycoming College in partial
fulfillment of the requirements for Departmental Honors in Nursing.

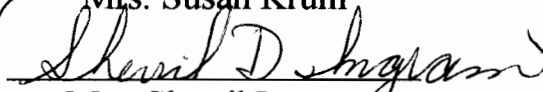
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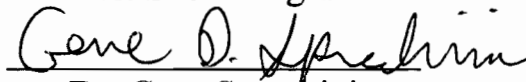
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Submitted by:
Tina Dougherty and Carmell Murray
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Abstract

Further investigation was necessary to evaluate patient satisfaction with discharge teaching among primipara and multipara women who have experienced either vaginal or cesarean deliveries, as it is related to the length of hospitalization. The three questions addressed in this study involved the relationship between patient satisfaction with discharge teaching and length of hospital stay, the relationship between satisfaction and parity (primip or multip) of the patient, and the relationship between satisfaction with discharge teaching and the type of delivery (vaginal or cesarean) experienced by the patient. This study was built upon the theoretical basis of Orem's Self-Care Deficit Theory and upon a pilot study conducted using the same methodology. The study sample was obtained using convenience sampling on the obstetric units at six different (two primary, two secondary, and two tertiary level hospitals) hospitals in Pennsylvania. Data was collected over a two-week period from a sample of 70 obstetric patients (27 primiparas and 42 multiparas; 14 cesarean and 56 vaginal deliveries). All subjects voluntarily participated in the study and their anonymity was ensured. A descriptive correlational design was used. Data was collected with the cooperation of unit nursing staff using the Maternal/Child Teaching Satisfaction Questionnaire, an instrument developed by the researchers using the format of the Stanford University Hospital Patient Education Follow-up Survey. The questionnaire was developed using the patient education packets provided by the hospital used in the pilot study. A demographic questionnaire accompanied the satisfaction questionnaire when presented to the subjects. Subjects voluntarily returned the completed questionnaires, in sealed envelopes, to the nurses' station on the units. Data analysis was completed through the BMDP New System utilizing Spearman's Rank Correlation, Mann-Whitney's Rank Sum test, and the Kruskal-Wallis One-Way Analysis of Variance. Significant relationships were found between length of stay (LOS) and total mean score (TMS) for one tertiary level hospital ($p=0.0447$) and between parity and overall satisfaction score (OSS) for a second tertiary level hospital ($p=0.0275$). Other significant findings included a significant correlation between LOS and stress today with all six hospitals combined ($p=0.0012$), between LOS and normal stress level at one primary level hospital ($p=0.0343$), between LOS and stress level today at one tertiary level hospital ($p=0.0008$), and between stress level today and normal stress level with all six hospitals combined ($p=0.0049$). A significant correlation was also found between overall teaching satisfaction score and overall medical care satisfaction score for all six hospitals combined ($p<0.0001$). Based upon the results of this study, it was concluded that the teaching provided on the six obstetric units was adequate. Recommendations for further research include adapting the questionnaire to encompass topics relating to emotional aspects of childbirth and addressing variables such as age of the subject and the number of years between previous births and current delivery, which were not analyzed in this study.

Table of Contents

	Page
Chapter I: Introduction	1
Definitions.....	3
Assumptions.....	4
Limitations.....	4
Benefits.....	5
Chapter II: Review of the Literature and Theoretical Framework	7
Review of the Literature.....	8
Length of Hospitalization.....	8
Discharge Teaching Needs of Patients.....	9
Teaching Through Repetition.....	13
Appropriate Time for Teaching.....	15
Effects of Teaching Strategy.....	17
Theoretical Framework (Orem).....	18
Chapter III: Methodology	22
The Research Design.....	22
Instrumentation.....	24
Treatment of Data.....	27
The Pilot Study.....	29
Chapter IV: Results: Analysis of Findings	31
Results Related to Study Questions.....	33
Results Related to Type of Teaching.....	39
Results Related to Stress Levels.....	40
Results Related to Medical Care Satisfaction.....	41

	Page
Interpretation.....	42
Threats to Validity.....	46
Chapter V: Discussion: Conclusions and Implications for Nursing.....	48
Implications for Nursing.....	49
Recommendations for Future Research.....	51
Dissemination of Information.....	52
References.....	54
Appendices.....	57
Appendix A: Descriptive Correlational Model.....	58
Appendix B: Permission Request for Research Study.....	59
Appendix C: Proposal.....	61
Appendix D: Consent Letter- Hospital 1A.....	63
Appendix E: Consent Letter- Hospital 1B.....	64
Appendix F: Consent Letter- Hospital 2A.....	65
Appendix G: Consent Letter- Hospital 3A.....	66
Appendix H: Consent Letter- Hospital 3B.....	67
Appendix I: Nurses' Script.....	68
Appendix J: Nurses' Script- Hospital 3A.....	69
Appendix K: Patient Cover Letter.....	70
Appendix L: Patient Cover Letter- Hospital 3A.....	71
Appendix M: Patient Cover Letter- Hospital 2B.....	72
Appendix N: Demographic Questionnaire.....	73
Appendix O: Maternal/Child Teaching Satisfaction Questionnaire.....	74
Appendix P: Demographic Questionnaire- Pilot Study.....	80

Appendix Q: Maternal/Child Teaching Satisfaction Questionnaire- Pilot Study.....81

Appendix R: Abstract-Pilot Study.....87

List of Tables

	Page
Table 4.1 <u>Descriptive Statistics of Sample Population</u>	31
Table 4.2 <u>Correlations Between Length of Hospital Stay and Satisfaction Scores</u>	34
Table 4.3 <u>Relationship Between Parity and Mean Satisfaction Scores</u>	36
Table 4.4 <u>Relationship Between Type of Delivery and Mean Satisfaction Scores</u>	38

CHAPTER I

Introduction

From 1987 to 1990 the length of average hospitalization required after a vaginal delivery decreased from 72 to 24 hours, while average length of stay following cesarean delivery decreased from four to three days. This was based on information from a womens' hospital in California (Gillerman & Beckham, 1991).

Decreased length of hospitalization has affected the amount of time available for patient teaching. For obstetric patients there is an expectation that a mother will receive discharge teaching from the nursing staff related to postpartum care of both herself and the newborn. Despite these expectations, "quite often the mothers indicate feeling uncertain about how to care for themselves and the infant once they are discharged" (Davis, Brucker, & Macmullen, 1988, p. 43).

Guidance in the form of patient education should be provided during hospitalization to form a basis of knowledge upon which a satisfying parent-infant relationship can be built (Golas & Parks, 1986). Further investigation was necessary to evaluate patient satisfaction with discharge teaching among primipara and multipara women who have experienced either vaginal or

cesarean deliveries, as it is related to the length of hospitalization. This would provide a basis upon which satisfaction could be improved.

The purpose of this study was to examine, over a two-week period, the relationship between patient satisfaction regarding discharge teaching received by primiparas (primips) and multiparas (multips) who have experienced a vaginal delivery or cesarean section (C-section), and the length of stay during their current hospitalization on the obstetric units at six different hospitals (two primary, two secondary, and two tertiary level hospitals) in Pennsylvania. The primary question that was formulated for this study is as follows:

What is the relationship between patient satisfaction regarding discharge teaching and length of hospital stay among vaginally and cesarean delivered patients on obstetric units at two primary, two secondary, and two tertiary level hospitals in Pennsylvania?

Related questions included:

1. What is the relationship between patient satisfaction regarding discharge teaching and parity (primip or multip), regardless of the method of delivery, on obstetric units at two primary, two secondary, and two tertiary level hospitals in Pennsylvania?

2. What is the relationship between patient satisfaction regarding discharge teaching and the type of delivery (vaginal or cesarean) experienced by those women on obstetric units at two primary, two secondary, and two tertiary level hospitals in Pennsylvania?

Definitions

Due to the number of variables under consideration in this study, it was necessary to define the terminology relating to those variables. The variables and terminology as defined by the researchers follows.

The term **patient** refers to "a recipient of a health care service," (Anderson, 1994, p. 1174). The term **satisfaction** is defined as "fulfillment of conditions or desires," (Barnhart & Barnhart, 1988, p. 1849). **Discharge** is the act of releasing as defined by Barnhart and Barnhart (1988, p. 597). **Teaching** refers to "instruction," or "what is taught," (Barnhart & Barnhart, 1988, p. 2152). For the purposes of this research, **discharge teaching** refers to the instructions given to a patient prior to release from the hospital. Therefore, **patient satisfaction with discharge teaching** is defined as the recipient's fulfillment of conditions or desires based on the instruction received prior to release from the hospital as measured by the Maternal/Child Teaching Satisfaction Questionnaire.

As defined by Anderson (1994) a **primipara** is "a woman who has given birth to one viable infant, indicated by 'para 1' on the patient's chart," (p. 1275) and a **multipara** is "a woman who has delivered more than one viable infant" (p. 1022). A **vaginal birth** is defined as the delivery of an infant via passage through the vagina (Anderson, 1994, p. 1626). A **cesarean birth** is "an operative procedure in which the fetus is delivered through a surgical incision in the woman's abdominal wall and uterus," (May & Mahlmeister, 1994, p. 587). And lastly, the phrase "**length of hospitalization**" refers to the time a patient spends in the hospital from admission to discharge as measured in hours.

Assumptions

This research was based upon the following assumptions: (a) all obstetric patients were provided with discharge teaching; (b) subjects answered questionnaires honestly; (c) all subjects completing the questionnaires read, wrote and understood English; (d) the scripts provided for the nurses who distributed the questionnaires to the subjects were followed accurately and consistently; (e) all subjects who met the criteria of the target population received questionnaires; (f) the changes made to the script for use at one of the six hospitals did not affect results; and (g) the changes made to the patient cover letter for two of the six hospitals did not affect the final results.

Limitations

One significant limitation of this study involved the research experience of the investigators. Taking into account that this was only the authors' second research study, their limited expertise, and the level of sophistication of the study, the potential for error existed. Other limitations included the small sample size from each institution and selection of subjects from the obstetric units at six hospitals in Pennsylvania.

The researchers were aware that small, localized sample sizes often prohibit generalizability of the results. This study was conducted on the obstetric units of six different hospitals, therefore the results that were obtained and conclusions that were drawn cannot be generalized beyond the population sampled in the study. The small sample size may have resulted in greater sampling error than that of larger samples (Burns & Grove, 1993). The potential

for varying levels of consistency existed among the nurses at and between each individual institution which presented a significant limitation in this study.

Other limitations of this study included the time constraints imposed on the researchers and the amount of literature available for review. The entire study had to be completed within four months. Due to the time constraints, the literature review may not have been as extensive as possible, and the small amount of literature available to be reviewed may not provide a complete background of the problem that was studied.

Benefits

This study had the potential to benefit many different groups. The patients benefitted from having the opportunity to provide input regarding the teaching process, as a basis for teaching improvement. Patients are the reason that health-care exists. Without feedback from the patients the nurses are teaching, there would be no information from which to analyze the nurses' teaching skills. Consequently, patients benefitted from the results of this study through improved, high-quality care and preparation for discharge that better met their expectations.

The results of this study enabled nurses and nursing administrators to critically analyze the teaching methods used on obstetric units. Nurses and administrators also became aware of patient opinions and satisfaction with the teaching process and the quality of patient education being delivered on the unit. That information may prompt a change of the teaching methods being used, or it may have provided justification of the methods that are utilized.

This research benefitted educators in that health care professionals gained some awareness of the level of patient satisfaction with the teaching they received. Educators, consequently, have a basis for evaluating methods used to teach nursing students with regard to educating patients in obstetrics. Nurse educators can assist students in condensing and presenting educational material in a meaningful and timely fashion.

Additionally, this research was potentially beneficial to insurance companies. In current discussions of managed care, the insurance companies are a frequent topic. This study examines the relationship between the discharge teaching provided to parents and their readiness to leave the hospital based on their satisfaction with their teaching, thus possibly providing an impetus for change in the length of stay policies of insurance companies.

Finally, this study provided a strong basis upon which future nursing research may be built. While this study involved multiple variables, there are many other variables which may be included in future studies that were omitted due to the time constraints in this study. This study contributed to the body of nursing research related to obstetric patient satisfaction with discharge teaching, a topic that has not been studied previously. As a result of this study, the researchers hoped to provide a basis upon which patient teaching may be improved, consequently improving patient satisfaction.

A review of the literature as related to the variables under consideration in this study follows in Chapter II.

CHAPTER II

Review of the Literature and Theoretical Framework

The purpose of this study was to examine, over a two-week period, patient satisfaction regarding discharge teaching received by both primiparas (primips) and multiparas (multips) who have experienced either vaginal deliveries or cesarean sections (C-sections), with regard to the length of stay during their current hospitalization on the obstetric units at six different hospitals in Pennsylvania. A review of nursing literature has been conducted to address the following questions: (a) What is the relationship between patient satisfaction regarding discharge teaching and length of hospital stay among mothers who experienced either vaginal or cesarean births on the obstetric units at two primary, two secondary, and two tertiary level hospitals in Pennsylvania? (b) What is the relationship between patient satisfaction regarding discharge teaching and parity (primip or multip), regardless of the method of delivery on the obstetric units at two primary, two secondary, and two tertiary level hospitals in Pennsylvania? (c) What is the relationship between patient satisfaction regarding discharge teaching and the type of delivery (vaginal or C-section) experienced by those women on the obstetric units at two primary, two secondary, and two tertiary level hospitals in Pennsylvania?

Review of the Literature

A review of the literature has uncovered journal articles related to length of hospital stay, discharge teaching needs of patients, teaching through repetition, appropriate time for teaching, and effects of teaching strategy for discharge teaching in obstetric populations. Patient discharge needs are identified as they relate to patient satisfaction, because the needs must be met in order to yield patient satisfaction. Most of the available research pertains to the individual variables or some combination of the variables included in this study; however there is a lack of research that combines all of these variables. A review of the literature encompassing the above-mentioned variables follows.

Length of Hospitalization

The following articles examined the length of hospitalization in relation to obstetric populations. Gillerman and Beckham (1991) stated, "As the length of stay decreases, the critical educational component of professional nurse-patient interaction becomes increasingly important to patient safety and patient satisfaction" (p. 11). The authors also discussed the lack of time available for maternal role support, support regarding maternal bodily changes, and information transference, resulting from the decreased length of stays. With the decreased length of hospitalization, it becomes even more important to provide mothers with adequate education (Bliss-Holtz, 1988; Peterson & Peterson, 1993; Stevens, 1993).

According to Nelson and Christenson (1995), some hospitals are capable of discharging patients who have had cesarean deliveries on hospital day three, while 80% of patients who have experienced vaginal deliveries are

discharged in one day. "Not every patient, however, can meet the target length of stay," (Nelson & Christenson, 1995, p. 480). The authors also discussed the implementation methods used to inform personnel within health care facilities of new length of stay guidelines. Nelson and Christenson (1995) suggest that a two-month transition period should be allotted in which to educate personnel regarding the changes in hospital protocol and the new guidelines.

A study conducted by Martell, Imle, Horwitz, and Wheeler (1989) focused on the challenge for nurses to teach patients who are affected by sleep deprivation, sensory overload, a shortened attention span, and post-delivery fatigue in a shortstay program. Adjusted short-stay programs have been developed which incorporate the priority topics relating to self-care rather than the full domain of information originally taught during the previously longer hospital stays.

Many studies refer to the length of hospitalization briefly when researching patient teaching in the obstetric population. A general concern voiced in the literature pertains to the lack of time available for maternal patient teaching when maternal exhaustion and both physical and mental changes are present. The current decrease in the length of obstetric hospitalizations has necessitated the need for concise, thorough discharge teaching related directly to the immediate needs of the patients.

Discharge Teaching Needs of Patients

Since patients are more aware of their own health care issues than are the medical professionals, it is important that the medical professionals plan their services to reflect the needs of the patients (Bruster, Jarman, Bosanquet,

Weston, Erens, & Delbanco, 1994). According to Gruis (1977) one of the four tasks mothers in the puerperium must accomplish relates to learning how to care for and meet the needs of a dependent infant. Major concerns for the mothers in Gruis's study (1977) were the return to their normal figures (95%) and regulating the demands of the household (90%). Another major concern of mothers, especially primiparas, has been identified as infant care in several studies (Abell-Conner & Venneau, 1996; Adams, 1963; Bliss-Holtz, 1988; Golas & Parks, 1986; Gruis, 1977; Maloni, 1994; Smith, 1989).

Smith (1989) also conducted a study to outline the main concerns of new mothers according to their status as primiparas or multiparas. This study was conducted regardless of the type of delivery by the subjects experienced. Based on a sample of 41 postnatal mothers from a hospital in British Columbia, baby feeding, fatigue, breast soreness, baby behavior, and return to their prepregnant figures were concerns voiced by primiparas. Major concerns voiced by multiparas included fatigue, regulating the demands of housework, partner and other children, breast soreness, and the labor and delivery experience. Similar to the results of Gruis' (1977) study, primiparas' concerns related to caring for the infant and meeting the needs of the new baby (Smith, 1989). Multiparas' concerns centered around the relationship and lifestyle changes necessary to integrate the new family member. Multiparas rated fatigue as the most frequent concern, while primiparas rated baby feeding as their most frequent concern (Smith, 1989). "Regulating demands of housework, partner, and other children were identified as a major concern by 13 (59%) of the multiparae in this study" (Smith, 1989, p.186). According to the authors, approximately half of the multiparas were concerned with emotional tension.

Davis, Brucker, and Macmullen (1988) further divide educational needs of patients to include maternal and infant care needs in order to identify the important postpartum teaching topics as expressed by the obstetric patients themselves. The subjects included those mothers who had experienced normal, uncomplicated vaginal deliveries resulting in the birth of a healthy newborn. A questionnaire was given to the patients in order to elicit demographic, maternal, and infant care information. Klaus and Kennell's study (as cited in Davis, Brucker, & Macmullen, 1988) stated that discharge in two days or less following delivery is not unusual when considering mother and newborn discharges. Davis, Brucker, and Macmullen (1988) believe that the shortened length of stay has abbreviated the extent of patient teaching time. The researchers concluded that primiparas' maternal areas of educational need focused on postpartum complications (69%) and episiotomies and stitches (63%). Infant care topics considered important by the primiparas included infant illnesses (69%), feeding baby (67%), along with cord care (54%), and infant medications (56%). Multiparas' maternal educational needs focused on postpartum complications (67%), medicines (53%), and stitches and episiotomy (52%). Infant topics considered of highest importance are infant illnesses (68%), temperature taking (53%), feeding baby (52%) and infant safety (52%).

In a similar study conducted by Martell, Imle, Horwitz, and Wheeler (1989) differences between primiparas and multiparas were found in two of twelve content areas ($p < .05$). Primiparas ranked pericare higher than multiparas, and multiparas ranked rest higher than primiparas. "The majority of mothers (81.0%) ranked identification of signs and symptoms of the infants illness as the most important information for the first three days at home"

(Martell, et al., 1989, p.325). According to the researchers, maternal signs and symptoms of illness, infant choking, and infant feeding items were found to be next in importance. The subjects in this study were not categorized according to C-section or vaginal delivery.

Miovech, Knapp, Borucki, Roncoli, Arnold, and Brooten (1994) conducted a study "to determine the major physiologic, psychosocial, and life-style concerns reported by women at both two- and eight-week periods following an unplanned cesarean delivery" (p.54). This descriptive study utilized open-ended telephone interviews to gather the appropriate information from patients who had delivered live, full-term newborns at a large urban hospital. The sample (based on 99 responses) was not divided according to parity. Physiologic concerns two weeks after delivery included pain, incisional problems, activity intolerance, fatigue, and gastrointestinal disturbances. Incisional problems (48%) were the major concern at eight weeks post-delivery.

The major physiologic and life-style concern at two weeks post-delivery was a change in activity (40%), followed by depression (16%), altered family interactions (13%), body image disturbances (11%), and child care concerns. Changes in activity (27%), body image changes (23%), altered family interactions (12%), school and work concerns (11%), and child care concerns (10%) were concerns mentioned eight weeks after delivery. Based on their findings, Miovech, et al. (1994) concluded that the above mentioned concerns must be addressed before, during, and after delivery, reinforcing their statement that meeting the hospital's criteria for discharge does not account for the patients' readiness for discharge.

The research available regarding discharge teaching needs of the patients encompassed a wide variety of topics related to both primips and multips. The topics were also discussed in relation to patients who experienced cesarean deliveries; however, no research was found that discussed the needs of patients who delivered vaginally. Overall, the patients voiced needs related to both maternal and infant care topics. Infant topics included feeding, bathing, and cord care while maternal topics ranged from care of episiotomies and staples or stitches to emotional concerns involving the addition of a new family member. These topics may be taught and learned through a variety of teaching processes.

Teaching Through Repetition

Some researchers have examined the educational process utilized in teaching maternal/infant care information. Stevens (1993) discussed how to design and implement a perinatal education class. Essentially, because of the changing interests and needs of the obstetric patients throughout the pregnancy, the nurse's first task is to identify the educational needs of the group, along with the group's characteristics, readiness, and motivation to learn. A teaching plan is then designed with consideration to the three learning domains: cognitive, affective, and psychomotor. Cognitive learning involves the acquisition of knowledge, comprehension, application, analysis, synthesis, and evaluation of the information. Affective learning is described through the receiving, valuing, organizing, and internalizing of the information. The psychomotor learning process involves "the observation of a task, the manipulation of the

information, equipment, and/or motions, the imitation of the task, and practicing the task, which leads to articulation through speed and control, and the naturalization of the task when the skill becomes spontaneous" (Stevens, 1993, p.49).

Through the psychomotor learning process, coupled with cognitive and affective domains, the mothers benefit from the discharge teaching by repeatedly demonstrating motherly acts. Stevens (1993) also discussed the inclusion of theories, internal and external barriers to learning, and various methods of teaching which included group discussions, lecture, demonstration, practice, and computerized learning. Of these, "demonstration and practice were considered effective for teaching in the psychomotor domain" (Stevens, 1993, p.52). Since teaching is a major role for perinatal nurses, evaluation of the teaching is necessary to document its effectiveness and any need for possible revisions.

The postpartum nurse also aids the mother by providing encouragement, reassurance, and support while allowing the patient to practice skills, ask questions, and gain confidence in her motherly tasks, thus positively affecting patient satisfaction (McKenzie, Canaday, & Carroll, 1982). The authors described postpartum changes experienced by the mothers, including both physiologic and psychological changes. According to the authors, during the six weeks following delivery, the nurse must assess for both normal and abnormal physical changes, provide safety and comfort along with anticipatory guidance, as well as maternal and infant patient education.

This study was not specific to type of delivery experienced by the mothers discussed in the article. Regardless, the nurse must be open to

questions regarding both maternal and infant care at any point in time.

"Providing early and frequent contacts allows the mother numerous opportunities to build proficiency in infant care-taking prior to discharge" (McKenzie, Canaday, & Carroll, 1982, p. 42). McKenzie, Canaday, and Carroll (1982) further discuss teaching in relation to Rubin's three phases of postpartum adjustment.

Rubin (1961) states that the mothers' perceptions related to the success of the first mothering act predict the success of future performances, thus a positive perception of the act decreases the intensity of following acts. The more often the mother repeats the things she learns before discharge from the hospital the more comfortable she will be with the tasks upon return home. This repetition requires time that does not often exist due to decreased length of hospitalizations.

Appropriate Time for Teaching

Many studies explore patient education in relation to the appropriate time for the initial patient teaching. The amount of time available for client teaching has decreased along with the length of hospitalization, resulting in minimal contact time between the patient and nurse for patient teaching (Bliss-Holtz, 1988). Compounding the situation further is the lack of interest in education following delivery (Abell-Conner & Venneau, 1996; Maloni, 1994). This lack of interest has been explained by Rubin as a taking-in phase, which is a time for recovering from delivery and regaining control of one's own body (Abell-Conner & Venneau, 1996; & Gruis, 1977). Therefore, based on the

aspects of the taking-in phase, the first 24 hours after delivery are not appropriate for patient teaching (Gruis, 1977: & Peterson & Peterson, 1993).

Eidelman, Hoffmann, and Kaitz (1993) stated that the ability of a postpartum mother (24 hours after delivery) to retain information related to patient teaching is significantly lower than her retention level prior to delivery (as cited in Abell-Conner & Venneau, 1996). Abell-Conner and Venneau (1996) identify the phases as the following:

The taking-in phase is the first 24 hours postpartum, during which the mother is able to process concrete information about an immediate situation. The taking-hold phase, approximately 24 to 48 hours after delivery, is the time when the mother begins to incorporate instruction on caring for herself and her infant that is relevant now and in the future (p. 35).

The decreased length of stay for postpartum mothers has resulted in large amounts of teaching information being given over a 24 to 36 hour time period.

In the survey conducted by Abell-Conner and Venneau (1996) at one small hospital, problems with one-to-one teaching were identified. At this time, mothers who delivered vaginally were hospitalized for two days, and those who had cesarean deliveries stayed three to four days. The problems included poor utilization of nursing time, discrepancies between the teaching that occurred on different shifts, and the overload of information given to the families before discharge. One year after the mother-baby unit was established discharge teaching methods were changed from individual to group teaching.

One year after group teaching was started, group discharge classes were initiated with immediate success. At this time those mothers who delivered

vaginally were hospitalized for one day and for those who delivered via cesarean two to three days. Further improvement was made to the process by the development of an admission nurse who cares for only the newborn for two hours after delivery to allow the baby to remain with the mother for those two hours. At the same time, a separate nurse is assigned to the mother. Despite the teaching improvements, it came to be realized that the optimal time for teaching is 48 to 72 hours after delivery. As a result, a telephone survey was initiated which provided information to the client at an appropriate time for increased retention and thus increased patient satisfaction.

The shortened length of stay has resulted in a decreased amount of time available for patient teaching. The literature highlights the inappropriate nature of patient teaching immediately following delivery due to the patient's fatigue and overwhelming feeling related to the birthing process. All of the articles suggested the optimal time for teaching as 24 to 72 hours following the delivery. Several articles addressed Rubin's phases of adjustment in the postpartum period. One article suggested telephone follow-up and postpartum educational classes following discharge to provide for more thorough patient teaching and continuity. The effects of various teaching strategies have been researched and documented.

Effects of Teaching Strategy

A few articles were available which outlined the effects of various patient teaching strategies. "The responsibility of teaching necessary skills to new parents rests with health care professionals" (Brown, 1982, p. 11). Not all

hospitals use the same teaching strategies, but a minimal amount of literature is available which relates these strategies to obstetric discharge teaching.

Rovers (1986) evaluated a postpartum education program that was put into place at the same time as mother-infant nursing (as cited in Watters & Kristiansen, 1995). The program increased maternal satisfaction with the quality of teaching and confidence in infant care. According to Watters and Kristiansen (1995), mother-infant nursing (one nurse caring for both the mother and infant) is leading toward family-centered nursing care, and it has been claimed that this improves client and staff satisfaction and quality of care.

Only one article, Watters and Kristiansen (1995), was found which related the effects of a specific teaching strategy to the educational program utilized. This study highlighted mother-infant nursing care as a means to increase patient satisfaction; however, other teaching strategies exist and must be examined further. No other research was found which discussed type of teaching strategies used on hospital obstetric units as the above article does.

The review of the literature provided a solid background on which to base this research study. All variables addressed in this study were examined individually since previous research did not incorporate all of the variables investigated in this study into one single study. A theoretical basis for this study was formed using Orem's Self-Care Deficit Theory and will be discussed in the following section.

Theoretical Framework

Orem's Self-Care Deficit Theory of Nursing formed the basis of this study for evaluation of patient satisfaction regarding discharge teaching

received by both primiparas (primips) and multiparas (multips) who have experienced either vaginal deliveries or cesarean sections (C-sections) as related to the length of stay during their current hospitalization on six different obstetric units. "A general theory of nursing is one that applies to all situations of practice and explains when and why nursing is needed by individuals or families, what is involved in nursing, and what results can be achieved through nursing," (Orem, 1990, p.48). An explanation of the relationship between this study and Orem's self-care deficit theory will follow.

Orem's Self-Care Deficit Theory of Nursing involves three parts: the theory of self-care, the theory of self-care deficit, and the theory of nursing system (Orem, 1991). Pertinent aspects of Orem's three-part theory will be discussed in relation to the present study. Self-care is defined as behavior that exists in life situations to regulate the environment or factors that affect "development and functioning in the interests of life, health, or well-being" (Orem, 1991, p. 64). The theory itself, explains the relationship between individuals' abilities and their demands for self-care or care of their dependents. All self-care capabilities are learned, hence it is not surprising that the ability to care for dependents is learned as well. In obstetrics, a mother's postpartum self-care and care of the infant (dependent) are taught via discharge teaching in preparation for returning home.

As a general theory of nursing, Orem's theory encompasses a variety of nursing interventions from initial admission assessment to evaluation and preparation for discharge. This process involves assessing and addressing both direct patient care needs and patient teaching needs. Patient educational needs may be dependent upon the gravidity/parity and the type of delivery the patient

has experienced. The length of hospitalization may affect the extent and quality of the teaching provided to a patient, potentially affecting the patient's satisfaction with the teaching. Nursing generally focuses on an end result, and for the purposes of this study, that end result is a mother's satisfaction with discharge teaching in preparation for returning home to comfortably care for herself and the new infant.

Self-care agency is the patient's ability to perform or provide for their own self-care. The focus of the theory is on interpersonal relationships, not on individuals. According to Passero (1987), "infants and children who are unable to provide their own self-care, due to their developmental stage, are said to have a dependent-care demand" (p. 3). The dependent-care demand exists in obstetrics which presents an interpersonal component of nursing practice, between both family and newborn and between the nurse and the family. A mutual aspect of goal setting exists in teaching new mothers how to properly care for herself and her newborn upon return home from the hospital.

According to Orem (1985), an idea central to the theory of self-care is that "self-care and care of dependent family members are learned behaviors that purposely regulate human structural integrity, functioning, and human development, (as cited in Fawcett, 1989, p.229). Lack of discharge teaching may present stressors to the new family upon return home. Without adequate teaching regarding care of the infant, learning will not be facilitated, and mothers will be unable to comfortably assume the parenting role upon returning home. According to Orem (1985), establishing interpersonal relationships helps to facilitate the teaching process and "contributes to alleviation of the patient's stress and that of the family" (as cited in Fawcett, 1989, p. 217).

Orem (1985) defines nursing as "...a form of help or assistance given by nurses to persons with legitimate need for it" (as cited in Passero, 1987). The need for nursing intervention (which was teaching for the purposes of this study) is perceived by the client as well as the nurse. Through interpersonal relationships which are central to Orem's Self-Care Deficit Theory of Nursing, goals may be set that incorporate the views of all those involved. Primary goals for nursing are to assess, plan, provide, and evaluate discharge teaching. In obstetrics, achievement of that goal may result in patient satisfaction. A result of achieving satisfaction with teaching may be a mother's ability to assume the parenting role in a comfortable and educated manner upon returning home.

Orem's Self-Care Theory implies that there is mutual goal setting that takes place between nurses and patients (new mothers for the purposes of this study). In order for the patient to experience satisfaction with discharge teaching, the goals that the new mother has set for herself in relation to teaching needs must be achieved. This achievement of goals may result in patient satisfaction with the discharge teaching and result in a positive self-care agency, enabling the new mother to return home and comfortably assume the parenting role in well-informed manner (Orem, 1991). A discussion of the methodology and research design follows in Chapter III.

Chapter III

Methodology

The purpose of this study was to examine the relationship between patient satisfaction with discharge teaching received by both primiparas (primips) and multiparas (multips) who have experienced either vaginal deliveries or cesarean sections (C-sections), and the length of hospital stay during current hospitalization on the obstetric units at six different hospitals (two primary, two secondary, and two tertiary level hospitals) in Pennsylvania.

The Research Design

The research design chosen for this study was a descriptive correlational design. This design was chosen to allow for the examination of relationships between multiple variables in a situation over a short period of time. In addition, there was no manipulation of the variables or participants included in the research. Burns and Grove (1993), provide a simplistic model of a descriptive correlational design (see Appendix A). A questionnaire was selected as the method of data collection because of the time constraints placed on the researchers and in order to provide the greatest efficiency for the researchers. This method also made it easier to guarantee the anonymity of the subjects.

The target population included all mothers being discharged to home with their newborns from the obstetric unit of one of six different hospitals in

Pennsylvania. This study did not include those mothers who have experienced stillbirths or miscarriages; these women were not presented with questionnaires due to the possible emotional conflicts. Convenience sampling was used for the study. Over a two-week period, all mothers (subjects) in the target population who completed and returned the questionnaires were included as the sample. However, due to minimal response at one institution, the data collection period was extended by three days to increase the response rate and allow for more adequate data analysis. Participation on the part of the subjects was voluntary, and their participation was elicited by the nursing staff utilizing the script to be discussed in the instrumentation section of this chapter.

In an attempt to access the target population, a letter requesting permission to conduct this study, along with the research proposal, was mailed to the appropriate administrators at the hospitals utilized in the study (see Appendix B and Appendix C, respectively). A letter of consent to conduct the study was received from the Investigational Review Board (IRB) and/or other appropriate officials of each institution involved in the study (see Appendices D, E, F, G, and H). One out of the six hospitals provided the researchers with verbal consent from the legal counsel and the Director of Nursing. Upon receipt of permission to conduct the study on the obstetric units at all six hospitals in Pennsylvania, the researchers contacted the managers of the obstetric units regarding the study. This contact included a discussion of the research purpose and questions, along with a detailed description of the methodology explained in this study. The outcome of the contact resulted in cooperation of the unit managers to assist in data collection. The contents of the questionnaire packet

were discussed with the manager, and the manager agreed to explain the data collection process to the nursing staff.

Instrumentation

The nursing staff on each obstetric unit was utilized to distribute the packets containing the questionnaires and the patient cover letter. A script was attached to each packet to promote consistency between the nurses when presenting the information packet to the subjects (see Appendix I). The script was designed to reinforce the criteria of the target population of the study. This was accomplished by clearly stating the criteria of the target population on the script attached to each packet. The script also included a verbatim monologue (to maintain consistency) to be presented to the patient by the nurse. The monologue concisely guaranteed the anonymity of the patients and stated that participation was purely voluntary. The same script was used by the nurses at five of the six hospitals. However, minor changes were made to the script for use at one hospital at the request of the institution's IRB (see Appendix J).

The cover letter provided in the packet of information given to the subjects invited them to participate in the study. The letter identified the two questionnaires included in the packet and stated that the approximate time for completion of the forms was 20 minutes. The subjects were given information about the procedure involved in returning the forms, and about the use of the results. The cover letter also contained the researchers' expectations of the subjects in addition to a statement of implied consent (see Appendix K). The same patient cover letter was used at four of the six hospitals. Changes were

made to the patient cover letter for two of the six hospitals at the request of the institutions IRB's (see Appendices L and M).

The demographic questionnaire was provided to the subjects in order to obtain certain demographic information (see Appendix N). The questions were designed to elicit information necessary to analyze the data with regard to the variables under consideration in this study. Five of the eleven questions included on the demographic questionnaire requested information relating specifically to the following variables: parity, type of delivery, and length of hospitalization. Another five questions were designed to yield generic demographic information for potential additional analyses. The final question was designed to yield descriptive information related to the method(s) of teaching used by the staff during the subject's hospitalization.

The Maternal/Child Teaching Satisfaction Questionnaire was developed by the researchers to elicit information directly pertaining to this study (see Appendix O). The researchers were unable to find a pre-existing tool specific to obstetrics and discharge teaching satisfaction in the limited time available for this study. The format of the Stanford University Hospital Patient Education Follow-up Survey developed by Bostrom, Caldwell, McGuire, and Everson (1996) was used as the basis for developing the questionnaire. The topics included in the questionnaire were obtained through a review of the literature, the patient education packets provided by the hospital used in the pilot study (to be discussed later in this section), and that hospital's maternal/child teaching record form. The researchers included specific topics that related to maternal self-care along with care of the infant, necessary for assuming a confident maternal role upon discharge. Since this questionnaire was newly developed by

novice researchers, the validity and reliability for it have not been established. However, the tool was determined to have face validity by Doris Parrish, PhD, RN, Associate Professor of Nursing, Department of Nursing, Lycoming College.

Packets containing the Maternal/Child Teaching Satisfaction Questionnaire, along with the demographic questionnaire and the patient cover letter were distributed by the nurses according to the instructions provided on the script attached to the packet. Each institution was provided with 40 questionnaire packets for distribution on the respective units. Questionnaires were coded using a two-digit number and were distributed in envelopes coded to correspond to the number on the questionnaires. The subjects were asked to return the questionnaires directly to the nursing staff or place them in the basket at the nurses' station in the coded, sealed envelopes prior to discharge. By coding and sealing the envelopes, the patient was assured confidentiality.

The data obtained from the questionnaires was entered into a BMDP New System datasheet identified only according to the code number on the questionnaires. Eighty-two variables were included in the data, encompassing both the demographic data and the data obtained from the patient satisfaction questionnaire. A five-point Likert-type scale ranging from very dissatisfied (1) to very satisfied (5), and including a "does not apply" category (0), was used with each question designed for the subjects to evaluate their satisfaction with their discharge teaching. Any response of zero on the patient satisfaction questionnaire was treated as missing data for the individual question. Further discussion of the treatment of missing data can be found in the treatment of data section to follow.

The responses to the 61 individual questions on the questionnaire were averaged to produce a total mean score (TMS) for each subject. The highest possible total mean score for the 61 questions was five (5) and the lowest was zero. The questions were also grouped to produce two subscales: maternal and infant care. The possible range of means for the maternal subscale (MMSS) based on the first 33 questions related to maternal care was from 0 to 5.00. The possible range of means for the infant subscale (MISS) based on 28 questions (question numbers 34 to 61 on the Maternal/Child Satisfaction Questionnaire) related to infant care was from 0 to 5.00. Two separate scores relating to overall satisfaction with discharge teaching (OSS) and overall satisfaction with medical care (OMCSS) were obtained via question numbers 62 and 63, each with a possible range of zero to 5.00. Questions 64 and 65, respectively, related to stress levels of the subjects on a "normal day" and on the day the questionnaire is being completed. These two questions were placed on a five-point Likert-type scale ranging from one (low level) to five (high level).

Treatment of Data

The length of hospitalization, measured in hours, and patient satisfaction, measured using questions with responses on a five-point Likert scale, were considered quantitative variables for the statistical purposes of this study. Type of delivery (vaginal or C-section) and parity (primip or multip) were both considered qualitative variables in the analysis of the data. Additionally, the final statement on the questionnaire entitled "additional comments" yielded qualitative data for descriptive analysis. The dependent

variable was patient satisfaction with discharge teaching, and the independent variables were type of delivery, parity, and length of hospitalization.

For the purposes of this study, the code number was considered as a character variable. Age, length of stay, number of each type of delivery with previous births, and the number of previous male and female children were placed on a quantitative scale. Marital status, type of delivery during this hospitalization, parity (multip vs primip), and sex of the newborn were on a nominal level of measurement. Education level completed was considered as ordinal data. The responses to the question involving type of teaching was considered to be nominal data. Sums of the the 65 responses from the Maternal/Child Teaching Satisfaction Questionnaire were treated as continuous measurements.

To incorporate all six hospitals while maintaining the confidentiality of the institutions, the researchers assigned each hospital a number and letter code. The numbers one, two, and three prior to the letters signify the level of the hospital as primary, secondary, and tertiary respectively. Each letter (A and B) represents an individual hospital. Therefore, 1A and 1B represent the two primary hospitals, 2A and 2B represent the two secondary level hospitals, and 3A and 3B represent the two tertiary level hospitals utilized in this study.

Based on the fact that all five mean scores were calculated from ordinal data, the Mann-Whitney rank sum test was used to consider the relationships between patient satisfaction (all five mean scores) and type of delivery or parity. Spearman's rank correlation was used to consider the relationship between patient satisfaction and length of hospitalization. A significance level of 0.05 was chosen for statistical analysis of the data in this study. Any missing

information on any one questionnaire was represented in the datasheet as blank cells and thus excluded from the calculation of mean scores for the individual subject.

The Pilot Study

A pilot study was conducted according to the aforementioned methodology using only one obstetric unit. A total of 37 questionnaire packets were distributed to 37 potential subjects on the unit. Thirty completed questionnaire packets (81%) were returned by the subjects; however, seven remained unaccounted for. The BMDP New System datasheet was used to analyze the data.

The methodology of the pilot study was performed exactly as stated in the current study (as outlined above). One change that was made was the expansion of the study to enable inclusion of the six different hospitals and to allow for comparison among obstetric units of the institutions involved and comparison of the results of the current study to the pilot study. One of the six hospitals utilized in the current study was the hospital involved in the pilot study. A second sample was obtained from this institution for inclusion and comparison in the current study. No further changes were made to the methodology of the current study based on the results of the pilot study.

The instrumentation involved in the pilot study was the same as was used in the current study with a few exceptions. The one question involving the type of teaching was not included on the demographic questionnaire for the pilot study. Likewise, the final three questions on the Maternal/Child Teaching Satisfaction Questionnaire were not included for the pilot study. The exact

demographic and satisfaction questionnaires utilized in the pilot study are provided in Appendices P and Q. These changes were made based upon the results of the pilot study, the limitations of the pilot study, and the information obtained from the review of the literature.

The results of the pilot study may be obtained by contacting the researchers; an abstract of those results was provided in Appendix R. Results of the pilot study will be addressed in comparison to those of the current study. A report of these results and analysis of findings follows in Chapter IV.

CHAPTER IV

Results: Analysis of Findings

The purpose of this study was to examine the relationship between patient satisfaction with discharge teaching received by both primiparas (primips) and multiparas (multips) who have experienced either vaginal deliveries or cesarean sections (C-sections), and the length of hospital stay during current hospitalization on the obstetric units at six different hospitals (two primary [1A and 1B], two secondary [2A and 2B], and two tertiary [3A and 3B]) in Pennsylvania.

The 70 subjects included in the sample ranged in age from 17 to 40 years. For a more detailed description of the sample refer to Table 4.1.

Table 4.1

Descriptive Statistics of Sample Population

<u>Categories</u>	<u>Hospitals</u>						ALL
	1A	1B	2A	2B	3A	3B	
Marital Status							
Married	4	5	15	2	12	15	53
Single	0	2	7	1	1	3	14
Divorced	0	1	1	0	0	0	2
Education Level							
Less than High School	0	1	3	0	1	2	7
High School	2	5	3	2	3	6	21
Some College	2	2	11	1	3	5	24
Bachelor's Degree	0	0	6	0	6	4	16
Master's Degree	0	0	0	0	0	1	1

(table continues)

Table 4.1 (continued)

Categories	Hospitals						
	1A	1B	2A	2B	3A	3B	ALL
Delivery Type							
Vaginal	3	8	18	3	9	15	56
Cesarean	1	0	6	0	4	3	14
Parity							
Primipara	1	4	9	1	5	7	27
Multipara	3	4	14	2	8	11	42
Sex of Newborn							
Male	2	5	13	2	7	9	38
Female	2	3	9	1	5	6	26
Twins	0	0	1	0	1	3	5
Teaching Category							
Individual	3	1	8	2	3	6	23
Individual/Written	0	1	5	1	4	5	16
Individual/Written/Video	1	1	5	0	4	2	13
Other	0	5	5	0	1	5	16

Due to the subjects' omission of responses on the demographic questionnaire, the number of responses for each category do not necessarily correspond to the total value of n (sample size) for each hospital. At hospital 1A a total of five questionnaires were distributed: four returned completed and one unaccounted for (n=4). At hospital 1B a total of 12 questionnaires were distributed: eight returned completed and four unaccounted for (n=8). At hospital 2A a total of 24 questionnaires were distributed: 23 returned completed and one incomplete (n=24). At hospital 2B a total of 10 questionnaires were distributed: three returned completed, one incomplete, and six unaccounted for (n=3). At hospital 3A a total of 18 questionnaires were distributed: 13 returned completed and five unaccounted for (n=13). At hospital 3B a total of 24 questionnaires were

distributed: 18 returned completed, one returned blank, and five unaccounted for (n=18).

The data collected via the question involving type of teaching was descriptively analyzed to determine which types of teaching were most common. The three most prevalent types of teaching included individual teaching (one to one), a combination of individual and written, and a combination of individual, written, and videos. The other types of teaching which were reported but not common included the following: (a) teaching in a group setting, (b) written teaching, (c) videos, (d) a combination of individual and video, (e) a combination of group and written, and (f) a combination of individual, written, group, and video. The three most prevalent types of teaching formed three categories, and a fourth category was formed by grouping these other types of teaching together to comprise the "other" category for data analysis.

Results Related to Study Questions

The results of each question will be discussed individually beginning with the primary question. What is the relationship between patient satisfaction regarding discharge teaching and length of hospital stay among both vaginally and cesarean-delivered patients on the obstetric units at six different hospitals (two primary, two secondary, and two tertiary level hospitals) in Pennsylvania?

The four mean satisfaction scores corresponding to each question posed in this study were: mean maternal satisfaction score (MMSS; mean of 32 maternal care questions), mean infant satisfaction score (MISS; mean of 29

infant care questions), total mean score (TMS; mean of 61 questions), and the overall satisfaction score (OSS; question 62 score alone). The smallest possible mean for each of the four scores was zero and the highest was five. The closer the mean score was to five, the higher the patient's satisfaction.

Spearman's rank correlation was used to relate patient satisfaction and length of hospital stay among both vaginally and cesarean-delivered patients using the chosen 0.05 significance level. The length of hospital stay (in hours) was correlated with each of the four satisfaction scores (MMSS, MISS, TMS, and OSS) for each hospital individually, for all six hospitals combined, and for each level (two hospitals in each level combined). Table 4.2 provides a list of the correlations performed and an overview of the results for the primary question as stated above.

Table 4.2
Correlations Between Length of Hospital Stay and Satisfaction Scores

<u>Hospital</u>	<u>Scores Correlated with Length of Stay</u>			
	MMSS	MISS	TMS	OSS
1A	-0.8000 (p=0.2000)	-0.8000 (p=0.2000)	-0.8000 (p=0.2000)	-0.7746 (p=0.2254)
1B	-0.4505 (p=0.3104)	-0.2857 (p=0.5345)	-0.2857 (p=0.5345)	-0.1443 (p=0.7575)
2A	-0.2515 (p=0.2470)	-0.1936 (p=0.3760)	-0.2356 (p=0.2730)	-0.0970 (p=0.6598)
2B	-0.5000 (p=0.6667)	-0.5000 (p=0.6667)	-0.5000 (p=0.6667)	-0.8660 (p=0.3333)
3A	0.5309 (p=0.0619)	0.4869 (p=0.0915)	0.5640 * (p=0.0447)	0.4352 (p=0.1372)

(table continues)

Table 4.2 *-(continued)*

<u>Hospital</u>	<u>Scores Correlated with Length of Stay</u>			
	MMSS	MISS	TMS	OSS
3B	0.0888 (p=0.7347)	0.1097 (p=0.6750)	0.1001 (p=0.7024)	0.1055 (p=0.6870)
all 6 combined	0.0144 (p=0.9082)	0.0560 (p=0.6527)	0.0248 (p=0.8452)	0.0250 (p=0.8407)
primary level (1A+1B)	-0.3059 (p=0.3602)	-0.2141 (p=0.5272)	-0.2551 (p=0.4490)	-0.2096 (p=0.5361)
secondary level (2A+2B)	-0.2614 (p=0.1971)	-0.2135 (p=0.2950)	-0.2497 (p=0.2186)	-0.1425 (p=0.4874)
tertiary level (3A+3B)	0.2782 (p=0.1366)	0.3050 (p=0.1013)	0.2675 (p=0.1530)	0.2540 (p=0.1755)

Spearman's Rank Correlation

With one exception, no significant relationships were found between length of stay (LOS) and any of the four satisfaction scores for any of the individual hospitals, for the six hospitals combined, or for any of the three levels. The exception was the correlation between LOS and TMS for hospital 3A. This relationship was significant ($p=0.0447$). The correlation between LOS and TMS for hospital 3A was positive ($R=0.5640$), thus it was found that as the length of stay increased, the total mean satisfaction increased for the subjects from that hospital.

Related questions considered for this study include the following:

1. What is the relationship between patient satisfaction regarding discharge teaching and parity (primipara or multipara), regardless of the method of delivery, on the obstetric units at six different hospitals (two primary, two secondary, and two tertiary level hospitals) in Pennsylvania?

The Mann-Whitney rank sum test was used to relate each of the four satisfaction scores with the parity (multip or primip) of the individual using the chosen 0.05 significance level. The tests between MMSS, MISS, TMS, and OSS and parity was performed for each hospital individually, for all six hospitals combined, and for each level (two hospitals in each level combined). The results of these tests are provided in Table 4.3.

Table 4.3
Relationship Between Parity and Mean Satisfaction Scores

<u>Hospital</u>		<u>Mean Satisfaction Scores</u>			
		MMSS	MISS	TMS	OSS
1A	Primip Multip	***Insufficient data to complete analysis***			
1B:	Primip Multip	4.5938 4.3759 (p=0.5541)	4.5979 4.2795 (p=0.3836)	4.5972 4.3295 (p=0.3836)	4.7500 4.5000 (p=0.4945)
2A:	Primip Multip	4.2382 4.5658 (p=0.6576)	4.1456 4.5781 (p=0.4589)	4.1923 4.5706 (p=0.5687)	4.2222 4.6429 (p=0.5563)
2B:	Primip Multip	***Insufficient data to complete analysis***			
3A:	Primip Multip	4.5848 4.3428 (p=0.7697)	4.6820 4.1624 (p=0.3028)	4.6333 4.2645 (p=0.5582)	4.6000 4.2500 (p=0.3997)
3B:	Primip Multip	3.8729 4.4535 (p=0.0701)	3.8270 4.4266 (p=0.0701)	3.8509 4.4394 (p=0.0775)	4.1429 4.7000 (p=0.0275)*
All 6 Combined	Primip Multip	4.2491 4.5036 (p=0.2016)	4.2243 4.4520 (p=0.3334)	4.2372 4.4796 (p=0.2447)	4.3333 4.6098 (p=0.1278)

(table continues)

Table 4.3 -(continued)

<u>Hospital</u>	<u>Mean Satisfaction Scores</u>			
	MMSS	MISS	TMS	OSS
Primary level (1A+1B)				
Primip	4.5095	4.5091	4.5105	4.6000
Multip	4.5105	4.4412	4.4767	4.7143
	(p=0.8062)	(p=0.6842)	(p=0.6842)	(p=0.6918)
Secondary level (2A+2B)				
Primip	4.2144	4.1310	4.1730	4.2000
Multip	4.6123	4.6174	4.6135	4.6875
	(p=0.3263)	(p=0.2464)	(p=0.3008)	(p=0.2792)
Tertiary level (3A+3B)				
Primip	4.1695	4.1833	4.1769	4.3333
Multip	4.4043	4.3092	4.3617	4.5000
	(p=0.2190)	(p=0.5236)	(p=0.3506)	(p=0.3529)

Mann-Whitney Rank Sum Test

With one exception, there were no significant relationships found at the 0.05 significance level between parity and the four satisfaction scores for each individual hospital, for the six hospitals combined, nor for any of the three levels. Statistical significance was found only for the relationship between parity and OSS for hospital 3B ($p=0.0275$). There was insufficient data to analyze the relationship between parity and the scores for hospitals 1A and 2B because there was only one primipara included in the sample at each hospital. Consequently, there was no data to analyze.

2. What is the relationship between patient satisfaction regarding discharge teaching and the type of delivery (vaginal or cesarean) experienced by those women on the obstetric units at six different hospitals (two primary, two secondary, and two tertiary level hospitals) in Pennsylvania?

Once again, the Mann-Whitney rank sum test was used to relate patient satisfaction with discharge teaching and delivery type (vaginal or cesarean) at

the 0.05 significance level. Each of the four individual mean satisfaction scores were compared to the type of delivery experienced by the subject. Scores were once again analyzed for each individual hospital, all six hospitals combined, and for each of the three levels. The results of these analyses can be found in Table 4.4.

Table 4.4
Relationship Between Type of Delivery and Mean Satisfaction Scores

<u>Hospital</u>		<u>Mean Satisfaction Scores</u>			
		MMSS	MISS	TMS	OSS
1A:	Vaginal Cesarean	***insufficient data to complete analysis***			
1B:	Vaginal Cesarean	***insufficient data to complete analysis***			
2A:	Vaginal Cesarean	4.5149 4.2185 (p=0.1592)	4.4642 4.2520 (p=0.3520)	4.4900 4.2317 (p=0.2052)	4.4706 4.5000 (p=0.6238)
2B:	Vaginal Cesarean	***insufficient data to complete analysis***			
3A:	Vaginal Cesarean	4.2827 4.7804 (p=0.0641)	4.2321 4.6550 (p=0.2774)	4.2625 4.7300 (p=0.1228)	4.2222 4.7500 (p=0.3747)
3B:	Vaginal Cesarean	4.1750 4.3984 (p=0.5275)	4.1293 4.4150 (p=0.3120)	4.1520 4.4073 (p=0.4475)	4.4286 4.6667 (p=0.5693)
All 6 combined:	Vaginal Cesarean	4.3995 4.4143 (p=0.9091)	4.3529 4.3950 (p=0.7538)	4.3773 4.4068 (p=0.9879)	4.4815 4.5714 (p=1.0000)
Primary level (1A+1B):	Vaginal Cesarean	***insufficient data to complete analysis***			

(table continues)

Table 4.4- (continued)

<u>Hospital</u>	<u>Mean Satisfaction Scores</u>			
	MMSS	MISS	TMS	OSS
Secondary level (2A+2B):				
Vaginal	4.5315	4.4839	4.5078	4.5000
Cesarean	4.2185	4.2520	4.2317	4.5000
	(p=0.1588)	(p=0.3504)	(p=0.1982)	(p=0.5923)
Tertiary Level (3A+3B):				
Vaginal	4.2172	4.1695	4.1952	4.3478
Cesarean	4.6167	4.5521	4.5917	4.7143
	(p=0.0814)	(p=0.1268)	(p=0.1216)	(p=0.2819)

Mann-Whitney Rank Sum Test

No significant results were found between type of delivery and any of the four satisfaction scores for any individual hospital, the combination of all six hospitals, nor for any of the three levels of hospitals at the 0.05 significance level. Due to the small sample size, there was insufficient data to analyze between vaginal and cesarean deliveries at hospital 1A, 1B, and 2B, along with the primary level. This is due to the fact that the sample only included one individual at hospital 1A who had a cesarean section, and none at hospitals 1B and 2B. Consequently, there was no data to analyze.

Results Related To Type of Teaching

There was one question included on the demographic questionnaire which prompted answers related to the type of teaching done with each subject. The description of the method used to categorize teaching type can be found previously in this chapter. The Kruskal-Wallis one-way analysis of variance was used to analyze the relationships between the four types of teaching (individual; individual and written; individual, written and video; and other)

and each of the four satisfaction scores (MMSS, MISS, TMS, and OSS) and the "stress level today" score with all six hospitals included.

There were no significant relationships found in any of the above mentioned comparisons. The results were as follows: MMSS and teaching type ($p=0.9464$), MISS and teaching type ($p=0.9405$), TMS and teaching type ($p=0.8695$), and OSS and teaching type ($p=0.8397$). These results were not compared according to each individual hospital because of the insufficient data in each teaching category when divided into six different hospitals.

Results Related to Stress Levels

Two questions on the questionnaire related to the stress level experienced by the patient on a normal day and on the day the questionnaire was completed. Analyses were performed for each individual hospital as well as all six hospitals combined comparing normal stress level and stress level today to LOS, type of delivery, and parity separately. Additional analyses were performed for the two stress levels between the two hospitals within each level (e.g., 1A compared to 1B, 2A compared to 2B, and 3A compared to 3B) and between the levels (e.g., primary with secondary, secondary with tertiary, and primary with tertiary). No significant relationships were found in the analyses of the two stress levels between the hospital levels using the Mann-Whitney rank sum test.

A significant finding resulted from the Spearman's Rank Correlation between length of stay and stress today with all six hospitals combined ($n=67$; $R=0.3863$; $p=0.0012$). Additionally, significant findings resulted from the correlation between normal stress level and LOS at hospital 1B ($n=7$;

R=0.7960; $p=0.0343$) and between stress level today and LOS at hospital 3B (n=17; R=0.7332; $p=0.0008$). Stress level today was correlated to normal stress level to yield highly significant results when all of the hospitals are combined (n=68; R=0.3370; $p=0.0049$). A positive correlation was found between normal stress level and stress today indicating that those subjects who usually experience a high level of stress experienced a high level of stress at the time the questionnaire was completed, suggesting that their stress was higher than normal during hospitalization.

Results Related to Medical Care Satisfaction

One question included on the satisfaction questionnaire was related to the subjects' satisfaction with their overall medical care. Analyses were performed for each individual hospital as well as all six hospitals combined comparing the overall medical care satisfaction score to LOS, type of delivery, and parity separately. Additional analyses were performed for the overall medical care score between the two hospitals within each level (e.g., 1A compared to 1B, 2A compared to 2B, and 3A compared to 3B) and between the levels (e.g., primary with secondary, secondary with tertiary, and primary with tertiary). No significant relationships or correlations were found with any of the above-mentioned analyses. However, a significant correlation was found between the overall teaching satisfaction score (OSS) and the overall medical care satisfaction score (OMCSS) for all six hospitals combined using the Spearman's rank correlation (n=68; R=0.5188; $p<0.0001$).

Interpretation

The results of each of the three questions addressed in this study will be analyzed. Generally, the results of the statistical analysis for the primary question showed no significant relationship between patient satisfaction with discharge teaching and length of hospital stay among both vaginally and cesarean-delivered patients in the target population, with one exception. The exception resulted from the correlation between LOS and TMS for hospital 3A. The significant relationship between length of hospital stay and TMS implies that with a longer hospital stay (at hospital 3A), the patients were more satisfied with their discharge teaching when compared using the total mean satisfaction score (MMSS and MISS averaged together). One inconsistency is evident in the fact that there was no significance in the relationship between LOS and OSS. One would tend to believe that if there is a significance between LOS and TMS, there would be one between LOS and OSS as well. However, the OSS score is derived from one single question on a five-point likert-type scale which leaves the subject with little range of choice to rate their satisfaction (on a scale of one to five), TMS on the other hand, is a calculated score that incorporates the answers to 61 individual questions. The OSS satisfaction score is measured on an integer scale of one to five, whereas TMS is on a continuous scale. This, in itself creates inconsistency between the two scores.

As suggested by the literature, it is important for the nurses to concisely educate the patients regarding the priority topics for safe maternal and infant care at home (Martell, Imle, Horwitz, & Wheeler, 1989). Based on the overall patient satisfaction, as analyzed in this study, it would appear that the nursing

staffs on the obstetric units at the six individual hospitals in Pennsylvania have done an adequate job in teaching the patients during their hospital stay.

No significant relationships were found between parity and the four satisfaction scores for each individual hospital, for the six hospitals combined, nor for any of the three levels. One exception occurred between parity and OSS for hospital 3B. In other words, since the primiparas' overall satisfaction score was lower than that of the multiparas at hospital 3B, the primiparas in the study were less satisfied, overall, than the multips were. At this hospital, this may be due to the fact that the multiparas already had children at home, and therefore, have previously experienced the health teaching necessary for providing care to an infant. This concept is substantiated by Rubin (1961) who states that a positive perception related to the first infant care activity (previous children) decreases the intensity of the activities to follow (newborn). Therefore, through repetition the mother becomes more confident in the skills necessary to care for her newborn.

This relationship is also substantiated by theory. Since primips have had less experience in parenting newborns, the goals that they set for themselves are more involved and indepth in relation to discharge teaching needs. Consequently, more teaching is necessary for their self-care agencies to be increased and for goal achievement according to Orem's Self-Care Deficit Theory of Nursing (Orem, 1991). The opposite, therefore, is true for multiparas. Due to their experience with previous deliveries and the parenting role, the goals they set for themselves in relation to discharge teaching needs are often less involved. Their self-care agencies tend to be higher because of their experience, and consequently, the patient satisfaction of multips (at hospital

3B) is increased. This was reflected in this study by the fact that the multipara women at hospital 3B were more satisfied with their discharge teaching than were the primipara women involved in the study in relation to OSS.

No significant results were found between type of delivery and patient satisfaction for any individual hospital, the combination of all six hospitals, nor for any of the three levels. According to the literature, the concerns of cesarean-delivered patients two weeks after delivery included pain, incisional problems, activity intolerance, and gastrointestinal disturbance (Miovech, Knapp, Borucki, Romcoli, Arnold, & Brooten, 1994). The questionnaire utilized in this study incorporated questions relating to both vaginal and cesarean care. There may have been a potential for decreased patient satisfaction if the topics specifically relating to type of delivery had been omitted from the questionnaire, particularly since topics relating to self-care of the patient related directly to the delivery (such as stitches and staples) are common as suggested by the literature. It was quite clear that regardless of the type of delivery experienced by the subject, satisfaction with discharge teaching was highly related to the amount of personal care needed by the mother due to the type of delivery.

Due to the insufficient amount of data collected at each individual hospital, no analysis of the type of teaching was performed for the individual hospitals. None of the other comparisons (between hospitals or levels) yielded any significant results. A question relating to the type of teaching was included on the demographic questionnaire as a basis for comparison of the various methods used to deliver information to the patients. Many authors (e.g., Stevens, 1993; McKenzie, Canaday, & Carroll, 1982) discussed the

effectiveness of various teaching strategies in relation to the patients' confidence in caring for themselves and their infant. "Demonstration and practice were effective methods for teaching in the psychomotor domain," according to Stevens (1993, p.52).

Several analyses were performed with regard to the subjects' stress levels on a normal day and on the day that the questionnaire was completed. A significant relationship was found between the LOS and stress today with all six hospitals combined. In other words, as the length of stay increased the stress levels of the subjects increased which negates any information related to length of stay incorporated into the review of the literature. Additionally, significant results were found from the correlations between normal stress level and LOS at hospital 1B, and between stress level today and LOS at hospital 3B. The significant correlation between normal stress level and LOS is not necessarily related to any of the concepts under consideration in this study since a person's normal stress level would be unrelated to her length of stay in the hospital. The normal stress variable was included on the questionnaire to form a basis for comparison between usual and present stress levels of the subjects.

Stress level today and normal stress level were correlated yielding highly significant results when all six hospitals were combined. In other words, if the subject tended to be a person who experienced high stress on a normal basis, she was likely to be more stressed in the hospital on the day on which the questionnaires were completed. Conversely, if the subject tended to be a person who did not experience stress on a normal basis, she was likely to be less stressed in the hospital on the day on which the questionnaires were completed. As discovered in the review of the literature, multiparas tend to be more

concerned with emotional and lifestyle changes related to the birth of another child. However, primiparas tend to be unsure about the care of the infant such as feeding and bathing (Smith, 1989). These concerns were not evident in the results of this study if considered in relation to stress levels.

There were no significant findings from the analysis between LOS, parity, and delivery type with overall medical care satisfaction for any of the possible combinations of hospitals or at each hospital individually. A significant correlation was found between the OSS and OMCSS for all six hospitals combined. Therefore it would seem that as overall satisfaction with discharge teaching increased, so did satisfaction with overall medical care.

Threats to Validity

There are multiple possible threats to validity, both internal and external. One possible threat to internal validity is history. Events outside of this study such as family visitation, maternal and/or complications, and staff shift changes were not controlled for in the study. Due to the age differences among the subjects, maturation was a potential threat to internal validity. Instrumentation methods present a possible threat to validity in that multiple nurses distributed the questionnaires at different hospitals. There was also no means by which to ensure that the script was followed. A total of 21 questionnaires remained unaccounted for which could contribute to an element of mortality or selective participation in either case, thus affecting internal validity. The convenience method of sampling included in the design poses a threat of selection bias because randomness was not possible with the sampling method and design used for this study.

One threat to external validity that existed throughout the study was the Hawthorne effect. By the simple nature of participating in the study, subjects may respond differently. Another potential threat to external validity involved the Rosenthal effect. The differences in the nurses' personalities could not be controlled for in this study. Since the nurses were the primary vehicle for distribution of the questionnaires, threats to validity exist secondary to the potential inconsistency in the presentation of the study and the questionnaire packet to the subjects. Convenience sampling potentially affected external validity in the same way it affected internal validity. The hospital setting may also pose a threat to external validity. Subjects may not have felt as comfortable in the hospital setting as they may have elsewhere, thus affecting the way in which they completed the questionnaire. History poses the same threat to external validity as discussed for internal validity. Conclusions and implications for nursing practice will be discussed in Chapter V.

CHAPTER V

Discussion: Conclusions and Implications for Nursing

The original problem as identified in the introduction of this study indicated that further investigation was necessary to evaluate patient satisfaction with discharge teaching among primipara and multipara women who have experienced either vaginal or cesarean deliveries, as it is related to the length of hospitalization. This research attempted to provide a basis upon which patient satisfaction could be determined. The results of this study will be discussed in relation to the problem statement, and further implications for nursing will be identified.

The results of this study yielded information, not previously abundant, regarding patient satisfaction with discharge teaching on the obstetric units at six different hospitals (two primary, two secondary, and two tertiary levels hospitals) in Pennsylvania. The results provided additional information regarding satisfaction of both primips and/or multips as well as information relating to the type of delivery (vaginal or cesarean section) experienced by the patient. Significant relationships were found only in comparison of length of hospitalization and TMS at hospital 3A and in comparison of parity and OSS at

hospital 3B in relation to the primary questions under consideration in this study. This study provided a basis upon which the satisfaction of obstetric patients, at the hospitals utilized in the study, could be improved.

Implications for Nursing

This study has potential implications for nursing education and practice. The results of this study will enable nurse educators to evaluate methods used when teaching students about patient education in obstetrics. Based on this study, the educators may choose (at hospital 3B) to emphasize the teaching needs of primiparas rather than to multiparas without ignoring the needs of the multiparas.

Another potential implication of this study involves nursing administration and nurses on the obstetric units at the hospitals utilized in this study. Overall, the results obtained through this study justified the teaching methods utilized on the obstetric unit where the research took place. Eleven questionnaires (three from hospital 1A, one from hospital 1B, four from hospital 2A, zero from hospital 2B, and three from hospital 3A) out of the total sample were returned with an additional comments related to the "supportive, friendly, helpful, and caring nursing staff." Such comments as these provide justification of the teaching methods used by the nursing staff on the unit. Consequently, the nursing administrators at the hospitals studied may commend the nursing staff of the obstetric units and may see no need to change the current obstetric teaching protocols but should be encouraged to continue to monitor satisfaction.

Thirteen questionnaires were returned with additional comments, one of which (at hospital 2A) stated, "Nurses did not go over many things. My doctor and a resident went over just about everything with me." This questionnaire was the only one received which contained a negative comment. This comment reflected the subject's responses on the five-point likert-type scale used on the questionnaire. One questionnaire from hospital 2A was returned incomplete with a note on the envelope from a nurse that stated, "The questionnaire was given to a two-day vaginal delivery who read it but decided not to fill it out because it seemed too complicated." And one subject from hospital 3B declined to complete the satisfaction questionnaire and stated in the additional comments, "I didn't ask for information since this was my second child, I knew what to expect. Review literature was provided for me in case I wanted to review any information." This subject's demographic data was included in the description of the sample, but no data was used in the statistical analysis since none of the satisfaction questions were answered.

The results of this study showed no relationship between increased patient satisfaction and length of hospital stay, which may be beneficial for insurance companies. However, it is possible that the small sample size and the concentration of the study at six different hospitals' obstetric units skewed the results of this question. Therefore, further research on this topic is needed and should be pursued with a larger, more diverse sample.

Through questioning of the patients regarding their satisfaction with obstetric discharge teaching, the patients benefited from being able to voice their opinions. Their opinions would be helpful in reviewing and evaluating the

teaching processes used on the units. Their comments may be taken into consideration in evaluation of teaching methods and concentration of teaching, thus providing a basis for changing the teaching or continuing it as it stands. In general, the teaching provided by the nurses on the units could be maintained.

This study had the potential to benefit nursing research since it was based upon nursing theory. This moves nursing one step closer to being considered a profession. This study also provided a basis upon which future research may be conducted.

Recommendations for Future Research

Throughout this study, many potentially detrimental shortfalls were identified. One such factor involved the convenience sample of only 70 subjects. Future research should address a much larger sample size using a variety of hospital obstetric units. Increased sample size and use of multiple facilities would allow for increased reliability of the results and promote generalizability of the findings. Although this study involved six different hospitals from three different levels, the sample population remained too limited for some data analyses. A longer data collection period may have provided additional information to categorize more of the subjects into each group (parity and type of delivery).

Another factor that potentially affected the results of this study was the use of the nurses as the primary source of distribution of the questionnaire packets. Due to the time constraints and nature of the researchers' schedules, this was uncontrollable in this study. However, a recommendation for future research would be for the researcher to distribute the questionnaires personally,

or for the future researcher to personally inform all nurses involved in the study. This would promote added continuity in the presentation of the study and questionnaire packets. Additionally, steps should be taken in future research to avoid the phenomenon of missing questionnaires. This could be remedied, once again, by the researcher speaking directly to the patients or the nursing staff or personally retrieving the completed questionnaires.

Future researchers may want to consider changing the Maternal/Child Teaching Satisfaction Questionnaire to include topics relating to emotional aspects of childbirth. Although the researchers included questions related to stress, those questions did not specifically address emotional aspects of childbirth, such as maintaining an adequate relationship with the significant other and other children along with handling the stressors of everyday life in the home. This concept was substantiated in the conclusions of this study as well as in the literature addressed in relation to this study.

Additionally, there are multiple variables that can be addressed in future research involving obstetric patient teaching satisfaction that were not addressed in this study. Such variables include the following: age of the subject, educational level of both the subject and the nurse, number of years between previous births and current delivery, visitation policy of the unit studied, and the pain level of the subject at the time the questionnaire is completed.

Dissemination of Information

The researchers of this study have various options available for dissemination of the information obtained through this study. Potential methods of disseminating the research findings of this study include oral presentations

and publication of the study in specialized journals such as Maternal-Child Nursing and Nurse Educator. The research topic addressed in this study is also appropriate for publication in sources directed toward the general public, such as Parents. Abstract publication is also another avenue for dissemination of this research. On the local level, a copy of the results of this study will be provided to the administration and staff of all six obstetric units utilized in this study. The results will be presented at each institution upon their request. The final copy of this study will be bound and placed in the archives at Lycoming College's Snowden Library, Williamsport, Pennsylvania.

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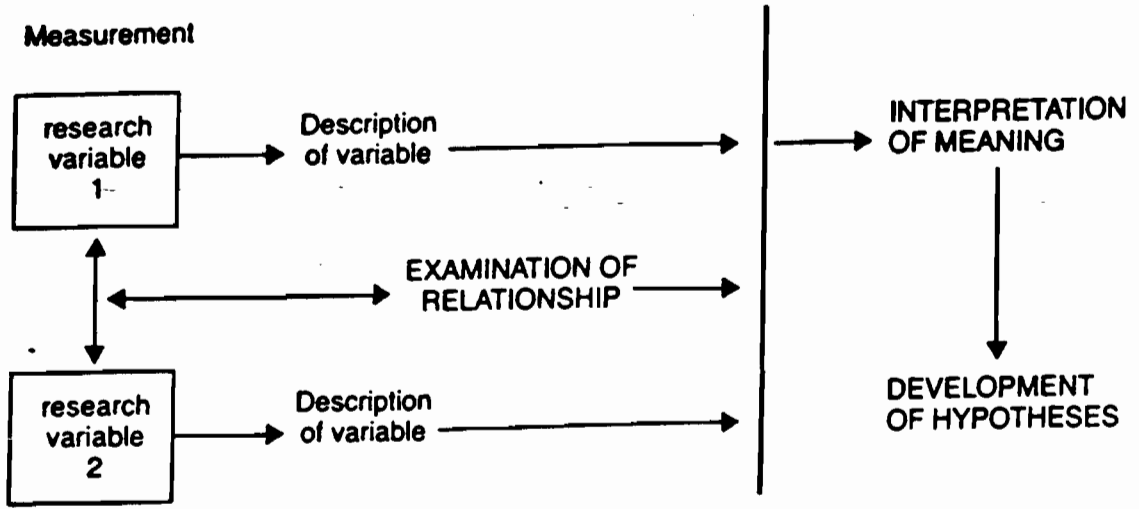
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Appendices

Appendix A

Descriptive Correlational Model



Appendix B
Permission Request for Research Study**LYCOMING COLLEGE**

WILLIAMSPORT, PA 17701-5192

Tina Dougherty and Carmell Murray
Lycoming College Campus Box 498
Williamsport, PA 17701

February 16, 1997

Dear

Please allow us to introduce ourselves. Our names are Tina Dougherty and Carmell Murray, and we are senior nursing students at Lycoming College. We are conducting a research study in order to receive Departmental Honors in Nursing.

We are requesting permission to conduct a study utilizing the nursing staff and patients on the obstetric unit of your hospital. The study will examine patient satisfaction with discharge teaching in obstetric populations obtained from six different hospitals. With the cooperation of the nursing staff, two questionnaires will be distributed to each mother (subject) approximately one hour before discharge. A script will be provided for the nurses to follow regarding the distribution of the questionnaires. The subjects who choose to participate will do so on a voluntary basis. The subjects will be expected to fill out two questionnaires: a demographic questionnaire and the Maternal/Child Teaching Satisfaction Questionnaire, developed by the researchers, which should take approximately 20 minutes to complete (see attached forms).

A pilot study was conducted by the researchers at one hospital to partially fulfill the requirements for Nursing 435, Research in Nursing, from September through December of 1996. The proposed study will be an expansion of the pilot study and will include multiple obstetric facilities in the surrounding areas in addition to a second sample from the obstetric population at the hospital utilized in the pilot study.

Once again, please consider the attached request. Thank you in advance for your consideration. Due to the time constraints of this study, please notify us by phone at 326-7638 (Tina Dougherty) or by e-mail at doutina@lycoming.edu. The written permission form can be sent to the address listed above.

Thank you once again for your time and consideration.

Respectfully submitted,

Tina Dougherty + Carmell Murray
Tina Dougherty & Carmell Murray
Lycoming College Nursing Students

Appendix C PROPOSAL

Purpose:

The purpose of this study is to examine, over a two-week period, patient satisfaction regarding discharge teaching received by both primiparas (primips) and multiparas (multips) who have experienced either vaginal deliveries or cesarean sections (C-sections), in relationship to the length of stay during their current hospitalization on the obstetric units at six different hospitals (three primary, one secondary, and two tertiary level hospitals) in Pennsylvania.

Questions:

1. What is the relationship between patient satisfaction regarding discharge teaching and length of hospital stay among both vaginally and cesarean delivered patients on obstetric units at three primary, one secondary, and two tertiary level hospitals in Pennsylvania?

2. What is the relationship between patient satisfaction regarding discharge teaching and parity (primip or multip), regardless of the method of delivery, on obstetric units at three primary, one secondary, and two tertiary level hospitals in Pennsylvania?

3. What is the relationship between patient satisfaction regarding discharge teaching and the type of delivery (vaginal or cesarean) experienced by those women on obstetric units at three primary, one secondary, and two tertiary level hospitals in Pennsylvania?

Pilot Study:

Based on the above questions, a pilot study was conducted using the obstetric unit at one secondary level rural community hospital in Pennsylvania. The Maternal/Child Teaching Satisfaction Questionnaire was developed by the researchers, as was the demographic questionnaire. The proposed methodology that follows mimicks that used in the pilot study, with the exception of the additional institutions involved in this study. An abstract of the pilot study, including the most pertinent results, is enclosed. Further information regarding the pilot study may be obtained upon request.

Target Population:

The target population includes all mothers being discharged to home at the same time as their newborns from the obstetric units at six different hospitals in Pennsylvania. This study will not include those mothers who have experienced stillbirths or miscarriages.

Sampling Technique:

Convenience sampling will be used for the purposes of this study. Over a two-week period, all mothers in the target population will be included as the projected sample.

Sample Access and Consent:

After obtaining permission from the six hospitals to conduct this research study, the researchers will contact the unit manager. The manager will be asked to inform the nursing staff about the study. The nursing staff will be instructed to read a script when distributing the questionnaires to the target population one hour before discharge. Consent by the subjects will be assumed through the completion of the questionnaires, as stated on the cover letter of the questionnaires.

Data Collection:

The questionnaires will be distributed as stated above in envelopes numbered to correspond to the number on the questionnaires. The subjects will voluntarily place the questionnaires, regardless of completion, in the corresponding sealed envelopes and place the envelope into a basket at the nurses' station prior to discharge. This will ensure confidentiality for the patient with respect to the researchers and the nursing staff. All data used in this study will come from the demographic questionnaire and the patient satisfaction questionnaire. Combined, these two forms should take approximately 20 minutes to complete. Upon completion of the study, the results will be provided to each of the six institutions involved in this study and the unit managers of the obstetric units upon request.

Data Analysis:

Statistical analysis will be implemented utilizing the BMDP New System datasheet to evaluate the data that is collected. Descriptive and inferential statistics will be reported. Spearman's Rank Correlation and Mann-Whitney's Rank Sum tests were utilized to analyze the data obtained in the pilot study.

Instruments:

A script will be provided for the nursing staff. A cover letter will be provided to the patient along with a demographic questionnaire and the Maternal/Child Teaching Satisfaction Questionnaire which have been enclosed.

Appendix D
Consent Letter- Hospital 1A

March 3, 1997

Tina Dougherty
Carmell Murray
Lycoming College Campus Box 498
Williamsport, Pa. 17701

I am pleased to grant Tina Dougherty and Carmell Murray permission to conduct their research study on patient satisfaction at the Obstetrical Department.

I am looking forward to meeting you on Sunday March 9th at 1pm.

Thank You

Nurse Manager
OB/L&D/Nursery

Appendix E

Consent Letter- Hospital 1B

Monday, February 03, 1997

Tina Dougherty
Lycoming College Campus Box 498
Williamsport, PA 17701

Dear Tina,

This letter is to confirm that I have received your request to conduct a patient satisfaction survey in our Obstetric Unit. I have made all the necessary contacts with Nursing Administration and with the OB staff and each have given their approval to participate with your research study.

All we need from you, in addition to the specifics, is to be included when the data showing the results of your study is released. I believe when we talked on the phone, you said this would be forthcoming.

If you need any further information regarding our participation in your research, please feel free to contact me.

Sincerely,

Appendix F

Consent Letter- Hospital 2A

January 9, 1997

Ms. Tina Dougherty
Ms. Carmell Murray
Williamsport College Campus
Box 498
Williamsport, Penna. 17701

Dear Tina and Carmell:

As a result of our telephone conversation yesterday morning, you do have administrative permission to continue conducting your research within the _____ and to use the OB Department as your clinical participant. Your research proposal was evaluated through the Investigational Review Board in November, 1996, and at that point administrative approval was granted for your two subsequent semesters.

Please contact _____, the Manager of the _____ to work through the details of continuation of your project.

Please do not hesitate to contact me if I can be of any help in any way. Good luck with your project.

Sincerely,

Appendix G

Consent Letter- Hospital 3A

DATE: March 13, 1997

TO: Carmell L. Murray, Senior Nursing Student, Lycoming College

FROM:

RE: IRB Protocol No. 97-047EP - Obstetric Patient Satisfaction with Discharge Teaching in Relation to Length of Hospitalization, Parity, and Type of Delivery among Multiple Institutions

Thank you for your application for the above research. Expedited approval was granted for this investigation for a one year period, effective March 13, 1997. This approval includes the revised nurses' script and consent letter. A formal consent form is not required for this research. A total of forty (40) subjects may be enrolled. You may proceed with the research, as outlined.

Please include the IRB protocol number on all future correspondence and documents related to this investigation.

Federal regulations require prompt reporting to the IRB of any proposed changes in a research activity and prior approval before changes are initiated, except where necessary to eliminate apparent immediate hazards to the subject. Any adverse events related to this project should be reported immediately to the IRB.

The Institutional Review Board appreciates your efforts to conduct research in compliance with the federal regulations that have been established to ensure the protection of human subjects.

Appendix H

Consent Letter- Hospital 3B

Chair, IRB
DATE: February 28, 1997

TO:

RE: Approval of Research Study

This memo is the official notification that your research project #97C-120, entitled **Obstetrics Patient Satisfaction with Discharge Teaching in Relation to Length of Hospitalization, Parity and Type of Delivery Among Multiple Institutions** has received the approval of the Institutional Research Review Board (IRRB) of the _____ on February 28, 1997 by expedited review. Please retain this approval letter and all correspondence with the I.R.R.B. in your files.

You:

- 1) May proceed, no further approvals are necessary.
- 2) Must await funding approval by the Administrative Committee for Research of the
- 3) Other

The I.R.R.B. is required to reapprove your project at least annually. Your approval expires **February 28, 1998**. The I.R.R.B. will audit your project for reapproval prior to that date. The Research Office will contact you regarding this audit three months in advance. Carefully kept, precise, complete, up-to-date research records and copies of informed consent forms must be maintained in your research files.

With official approval of your project, the project title and your name as investigator will be added to the "Active Research Listing" which may be shared with all _____ If this poses a problem, please contact the Research Office.

Appendix I
NURSES' SCRIPT

Instructions:

The patients to be included in this study are those who have experienced either vaginal or cesarean sections which resulted in the birth of a live infant. The patients must also be discharged to home at the same time as their infant.

Please read the following paragraph to all mothers who fit the above criteria when distributing the questionnaire. The questionnaires are to be distributed one hour prior to discharge in order to ensure accurate results of this study.

"This packet contains two questionnaires, which I have been asked to provide to you one hour before discharge. Two senior nursing students from Lycoming College are conducting a study to benefit the staff and the patients of this unit. The study is explained further in the letter enclosed in this packet. When you have completed the questionnaires, place the forms in the envelope provided and seal the envelope to ensure confidentiality. Please do not write your name at any place on the forms. The envelope may be dropped in the basket at the nurses' station marked 'Questionnaires' or returned directly to me before you leave. Your participation is purely voluntary, and you will suffer no ill-effects from refusing to participate. Your time and willingness to complete this questionnaire is greatly appreciated."

Appendix J
NURSES' SCRIPT- Hospital 3A

Instructions:

The patients to be included in this study are those who have experienced either vaginal or cesarean sections which resulted in the birth of a live infant. The patients must also be discharged to home at the same time as their infant.

Please read the following paragraph to all mothers who fit the above criteria when distributing the questionnaire. The questionnaires are to be distributed one hour prior to discharge in order to ensure accurate results of this study.

"Two senior nursing students from Lycoming College are conducting a study to benefit the staff and the patients of this unit. This study involves two questionnaires about the health care information you received during your hospital stay. The study is explained further in the letter enclosed in this packet. If you are willing to participate in this study, please complete the questionnaires, place the forms in the envelope provided, and seal the envelope to ensure confidentiality. Please do not write your name at any place on the forms. The envelope may be dropped in the basket at the nurses' station marked 'Questionnaires' or returned directly to me before you leave. Your participation is purely voluntary, and you will suffer no ill-effects from refusing to participate. Your time and willingness to complete this questionnaire is greatly appreciated."

Appendix K
Patient Cover Letter

LYCOMING COLLEGE

WILLIAMSPORT, PA 17701-5192

February 10, 1997

CONGRATULATIONS ON YOUR NEW ARRIVAL!

Please allow us to introduce ourselves. We are senior nursing students from Lycoming College, and we are conducting a study in order to receive Departmental Honors in Nursing. We invite you to participate in this study. Your time and assistance would be greatly appreciated.

Attached, you will find two questionnaires. We ask that you fill them both out before you leave the hospital. The forms will take approximately 20 minutes to complete. Your name should not appear anywhere on the forms, and the questionnaires should be returned in a sealed envelope to ensure confidentiality. When you are finished with the forms, you can drop them into the basket marked "questionnaires" at the nurses' station or return it to the nurse.

The results of this study will be provided to the administrators of the obstetric unit and of the hospital. The results from the study will be reported only as a group, not on an individual basis. We will ask you to complete only the attached two questionnaires; no future contact with the researchers will be necessary. If you choose not to participate in this study, your refusal will have no implications on current or future care provided by the hospital.

Thank you in advance for your time and cooperation. Your completion of the attached questionnaires will be considered your consent to participate in the study.

Tina Dougherty + Carmell Murray
Tina Dougherty & Carmell Murray

Lycoming College Nursing Students

Appendix L
Patient Cover Letter- Hospital 3A

LYCOMING COLLEGE

WILLIAMSPORT, PA 17701-5192

February 10, 1997

CONGRATULATIONS ON YOUR NEW ARRIVAL!

Please allow us to introduce ourselves. We are senior nursing students from Lycoming College, and we are conducting a study. The purpose of the study is to evaluate patient satisfaction regarding the health care information given to new mothers during hospitalization after having a baby. We invite you to participate in this study. Your time and assistance would be greatly appreciated.

Attached, you will find two anonymous questionnaires. If you are willing to participate, we ask that you fill them both out before you leave the hospital. Your completion of the questionnaires will be considered your consent to participate in the study. The forms will take approximately 20 minutes to complete. Because these are anonymous questionnaires, your name should not appear anywhere on the forms, and the questionnaires should be returned in a sealed envelope to ensure confidentiality. When you are finished with the forms, you can drop them into the basket marked "questionnaires" at the nurses' station or return it to the nurse.

The results of this study will be provided to the administrators of the obstetric unit and of the hospital. The results from the study will be reported only as a group, not on an individual basis. We will ask you to complete only the attached two questionnaires; no future contact with the researchers will be necessary. If you choose not to participate in this study, your refusal will have no implications on current or future care provided by the hospital.

Thank you in advance for your time and cooperation.

Tina Dougherty + Carmell Murray
Tina Dougherty & Carmell Murray

Lycoming College Nursing Students

D E P A R T M E N T O F N U R S I N G
P H O N E • 7 1 7 - 3 2 1 - 4 2 5 0 F A X • 7 1 7 - 3 2 1 - 4 0 9 0



LYCOMING COLLEGE

 WILLIAMSPORT, PA 17701-5192

March 19, 1997

CONGRATULATIONS ON YOUR NEW ARRIVAL!

Please allow us introduce ourselves. We are senior nursing students from Lycoming College, and we are conducting a study in order to receive Departmental Honors in Nursing. We invite you to participate in this study. Your time and assistance would be greatly appreciated.

Attached, you will find two questionnaires. We ask that you fill them both out before you leave the hospital. The forms will take approximately 20 minutes to complete. Your name should not appear anywhere on the forms to preserve your anonymity. The questionnaires should be returned in a sealed envelope to ensure confidentiality. When you are finished with the forms, you can drop them into the box marked "questionnaires" at the nurses' station or return it to the nurse.

The results of this study will be provided to the administrators of the obstetric unit and of the hospital. If you would like a copy of the final report, you may contact the researchers at the number below. The results from the study will be reported only as a group, not on an individual basis, and will be used for the sole purpose of the above-mentioned course. We will ask you to complete only the attached two questionnaires; no future contact with the researchers will be necessary. Your participation is purely voluntary. If you choose not to participate in this study, your refusal will have no implications on current or future care provided by the hospital.

Thank you in advance for your time and cooperation. Your completion of the attached questionnaires will be considered your consent to participate in the study.

Tina Dougherty & Carmell Murray
 Tina Dougherty and Carmell Murray

Lycoming College Nursing Students

Appendix N
Demographic Questionnaire

Code _____

Age: _____ (years)

Marital Status: (please circle one)

Married

Single

Divorced

Widowed

Educational level completed: (please circle one)

Less than high school

High school diploma

Some college

Bachelor's degree

Master's degree

Doctorate

Date and time of admission for current hospitalization:

Date: _____ Time: _____ am / pm

Date and time the questionnaire is completed:

Date: _____ Time: _____ am / pm

Date and time of discharge:

Date: _____ Time: _____ am / pm

Type of delivery this hospitalization: (circle one)

Vaginal

or

Cesarean

Number of pregnancies resulting in live births: (including this one) _____

Type of delivery with previous births: (please indicate number of each) _____ Vaginal and/or _____ Cesarean

Sex of newborn: (please circle one and indicate number of each this delivery)

_____ Male and/or _____ Female

Sex of previous children: (please indicate number of each)

_____ Male and/or _____ Female

How did the staff do your teaching? (please circle all that apply) _____ individual (one to one) _____ in a group setting

written information _____ videos _____ other _____

Appendix O

Code No _____

**Maternal/Child Teaching
Satisfaction Questionnaire**

This questionnaire asks for your views about the health care information you received from the hospital. Many people who are leaving the hospital have some questions about how to manage their care and the care of their infants once they are at home. The following is a list of topics which some people have said they would like to know to be able to take care of themselves and/or their infants at home. We would like to know how satisfied you are with the information you received on each of these topics.

For each of the following statements please circle the appropriate choice based on how satisfied you were with the discharge teaching you received from the hospital. If the item does not apply to your situation or illness, please circle 0 for "does not apply" and go on to the next statement. If the item does relate to you, please circle the appropriate number to indicate your level of satisfaction. Choices range from 1, meaning very dissatisfied to 5, meaning very satisfied.

IN ORDER TO MANAGE MY OWN CARE AT HOME I NEED TO KNOW:

How satisfied are you with information you received on:	Does Not Apply	Very Dissatisfied	2	3	Very Satisfied
1. Postpartum chill.	0	1	2	3	4
2. Maternal urination.	0	1	2	3	4
3. Prevention of maternal constipation.	0	1	2	3	4
4. Afterpains and how to relieve them.	0	1	2	3	4
5. Bleeding and changes in vaginal discharge over next 6 weeks.	0	1	2	3	4
6. Reasons to call doctor regarding your self-care.	0	1	2	3	4
7. Care of stitches after vaginal delivery.	0	1	2	3	4

How satisfied are you with information you received on:	Does Not Apply	Very Dissatisfied	1	2	3	4	Very Satisfied
8. Care of the vaginal area.	0	1	2	3	4	5	
9. Care of hemorrhoids.	0	1	2	3	4	5	
10. RhoGAM injection.	0	1	2	3	4	5	
11. Rubella vaccine and possible side effects.	0	1	2	3	4	5	
12. Activities after vaginal birth.	0	1	2	3	4	5	
13. Care of staples, stitches, or steri-strips after Cesarean delivery.	0	1	2	3	4	5	
14. Activities after Cesarean birth.	0	1	2	3	4	5	
15. Care of Cesarean incision.	0	1	2	3	4	5	
16. Breast care for breast-feeding mothers.	0	1	2	3	4	5	
17. Dealing with breast engorgement.	0	1	2	3	4	5	
18. Care of sore nipples.	0	1	2	3	4	5	
19. Breast care for bottle-feeding mothers.	0	1	2	3	4	5	

How satisfied are you with information you received on:	Does Not Apply	Very Dissatisfied	2	Very Satisfied
20. What I should and should not eat.	0	1	2	3 4
21. What emotional changes I should expect.	0	1	2	3 4
22. When I may resume sexual activity.	0	1	2	3 4
23. Birth control or family planning.	0	1	2	3 4
24. Ways to cope with stress.	0	1	2	3 4
25. Breast feeding positions for you and infant.	0	1	2	3 4
26. Breast feeding techniques.	0	1	2	3 4
27. Where to get help if problems breast-feeding.	0	1	2	3 4
28. Medication use, including vitamins.	0	1	2	3 4
29. Exercises following vaginal or Cesarean delivery.	0	1	2	3 4
30. Available support services.	0	1	2	3 4
31. Comfort measures following delivery.	0	1	2	3 4

How satisfied are you with information you received on:	Does Not Apply	Very Dissatisfied					Very Satisfi
32. Breast self-exam.	0	1	2	3	4	5	
33. Maternal sweats/ Weight loss/ Hair loss	0	1	2	3	4	5	
34. Handwashing related to handling of infant.	0	1	2	3	4	5	
35. Normal infant behaviors.	0	1	2	3	4	5	
36. Positioning of baby for sleeping.	0	1	2	3	4	5	
37. Crib safety.	0	1	2	3	4	5	
38. Infant crying.	0	1	2	3	4	5	
39. Use of pacifiers.	0	1	2	3	4	5	
40. Infant weight loss.	0	1	2	3	4	5	
41. Infant weight gain.	0	1	2	3	4	5	
42. How to be sure infant is eating enough (for example: counting diapers).	0	1	2	3	4	5	
43. Normal appearance of infant stools.	0	1	2	3	4	5	

How satisfied are you with information you received on:	Does Not Apply	Very Dissatisfied				Very Satisf
		1	2	3	4	5
44. Infant positions for bottle feeding.	0	1	2	3	4	5
45. Preparation and storage of formula.	0	1	2	3	4	5
46. Care of feeding equipment.	0	1	2	3	4	5
47. Infant bathing.	0	1	2	3	4	5
48. Care of the umbilical cord.	0	1	2	3	4	5
49. Diaper rash.	0	1	2	3	4	5
50. Care of circumcision of male infant.	0	1	2	3	4	5
51. Jaundice.	0	1	2	3	4	5
52. Importance of well-baby check-ups and immunizations.	0	1	2	3	4	5
53. Infant fluoride and vitamins.	0	1	2	3	4	5
54. Taking rectal temperature.	0	1	2	3	4	5
55. Reading a glass thermometer.	0	1	2	3	4	5

How satisfied are you with information you received on:	Does Not Apply	Very Dissatisfied	1	2	3	4	Very Satisfied
56. Bulb syringe use.	0	1	2	3	4	5	
57. Reasons to call doctor regarding infant care.	0	1	2	3	4	5	
58. Infant and child safety.	0	1	2	3	4	5	
59. Care seat safety.	0	1	2	3	4	5	
60. Infant burping.	0	1	2	3	4	5	
61. Infant diapering.	0	1	2	3	4	5	
62. Overall, I would rate my satisfaction with my discharge teaching:	0	1	2	3	4	5	
63. Overall, I would rate my medical care:	0	1	2	3	4	5	
Please answer the following questions related to stress:	Low Level						High Level
64. On a normal day, my stress level is:	1	2	3	4	5		
65. Today, my stress level is:	1	2	3	4	5		

Additional comments:

Appendix Q

Code No _____

**Maternal/Child Teaching
Satisfaction Questionnaire - Pilot Study**

This questionnaire asks for your views about the health care information you received from the hospital. Many people who are leaving the hospital have some questions about how to manage their care and the care of their infants once they are at home. The following is a list of topics which some people have said they would like to know to be able to take care of themselves and/or their infants at home. We would like to know how satisfied you are with the information you received on each of these topics.

For each of the following statements please circle the appropriate choice based on how satisfied you were with the discharge teaching you received from the hospital. If the item does not apply to your situation or illness, please circle 0 for "does not apply" and go on to the next statement. If the item does relate to you, please circle the appropriate number to indicate your level of satisfaction. Choices range from 1, meaning very dissatisfied to 5, meaning very satisfied.

IN ORDER TO MANAGE MY OWN CARE AT HOME I NEED TO KNOW:

How satisfied are you with information you received on:	Does Not Apply	Very Dissatisfied				Very Satisfi
1. Postpartum chill.	0	1	2	3	4	5
2. Maternal urination.	0	1	2	3	4	5
3. Prevention of maternal constipation.	0	1	2	3	4	5
4. Afterpains and how to relieve them.	0	1	2	3	4	5
5. Bleeding and changes in vaginal discharge over next 6 weeks.	0	1	2	3	4	5
6. Reasons to call doctor regarding your self-care.	0	1	2	3	4	5
7. Care of stitches after vaginal delivery.	0	1	2	3	4	5

How satisfied are you with information you received on:	Does Not Apply	Very Dissatisfied	2	3	Very Satisf
8. Care of the vaginal area.	0	1	2	3	4
9. Care of hemorrhoids.	0	1	2	3	4
10. RhoGAM injection.	0	1	2	3	4
11. Rubella vaccine and possible side effects.	0	1	2	3	4
12. Activities after vaginal birth.	0	1	2	3	4
13. Care of staples, stitches, or steri-strips after Cesarean delivery.	0	1	2	3	4
14. Activities after Cesarean birth.	0	1	2	3	4
15. Care of Cesarean incision.	0	1	2	3	4
16. Breast care for breast-feeding mothers.	0	1	2	3	4
17. Dealing with breast engorgement.	0	1	2	3	4
18. Care of sore nipples.	0	1	2	3	4
19. Breast care for bottle-feeding mothers.	0	1	2	3	4

How satisfied are you with information you received on:	Does Not Apply	Very Dissatisfied			Very Satisfi	
		1	2	3	4	5
20. What I should and should not eat.	0					
21. What emotional changes I should expect.	0					
22. When I may resume sexual activity.	0					
23. Birth control or family planning.	0					
24. Ways to cope with stress.	0					
25. Breast feeding positions for you and infant.	0					
26. Breast feeding techniques.	0					
27. Where to get help if problems breast-feeding.	0					
28. Medication use, including vitamins.	0					
29. Exercises following vaginal or Cesarean delivery.	0					
30. Available support services.	0					
31. Comfort measures following delivery.	0					

How satisfied are you with information you received on:	Does Not Apply	Very Dissatisfied	2	3	Very Satisfied
32. Breast self-exam.	0	1	2	3	4
33. Maternal sweats/ Weight loss/ Hair loss	0	1	2	3	4
34. Handwashing related to handling of infant.	0	1	2	3	4
35. Normal infant behaviors.	0	1	2	3	4
36. Positioning of baby for sleeping.	0	1	2	3	4
37. Crib safety.	0	1	2	3	4
38. Infant crying.	0	1	2	3	4
39. Use of pacifiers.	0	1	2	3	4
40. Infant weight loss.	0	1	2	3	4
41. Infant weight gain.	0	1	2	3	4
42. How to be sure infant is eating enough (for example: counting diapers).	0	1	2	3	4
43. Normal appearance of infant stools.	0	1	2	3	4

How satisfied are you with information you received on:	Does Not Apply	Very Dissatisfied	2	3	Very Satis
44. Infant positions for bottle feeding.	0	1	2	3	4
45. Preparation and storage of formula.	0	1	2	3	4
46. Care of feeding equipment.	0	1	2	3	4
47. Infant bathing.	0	1	2	3	4
48. Care of the umbilical cord.	0	1	2	3	4
49. Diaper rash.	0	1	2	3	4
50. Care of circumcision of male infant.	0	1	2	3	4
51. Jaundice.	0	1	2	3	4
52. Importance of well-baby check-ups and immunizations.	0	1	2	3	4
53. Infant fluoride and vitamins.	0	1	2	3	4
54. Taking rectal temperature.	0	1	2	3	4
55. Reading a glass thermometer.	0	1	2	3	4

How satisfied are you with information you received on:	Does Not Apply	Very Dissatisfied	1	2	3	4	5	Very Satisfi
56. Bulb syringe use.	0	1	2	3	4	5		
57. Reasons to call doctor regarding infant care.	0	1	2	3	4	5		
58. Infant and child safety.	0	1	2	3	4	5		
59. Care seat safety.	0	1	2	3	4	5		
60. Infant burping.	0	1	2	3	4	5		
61. Infant diapering.	0	1	2	3	4	5		
62. Overall, I would rate my satisfaction with my discharge teaching:	0	1	2	3	4	5		

Additional comments:

Appendix R

Abstract - Pilot Study

Further investigation was necessary to evaluate patient satisfaction with discharge teaching among primipara and/or multipara women who have experienced either vaginal or cesarean deliveries, as it is related to the length of hospitalization. The three questions addressed in this study involved the relationship between patient satisfaction with discharge teaching and length of hospital stay, the relationship between satisfaction and parity (primip or multip) of the patient, and the relationship between satisfaction with discharge teaching and the type of delivery (vaginal or cesarean) experienced by the patient. This study was built upon the theoretical basis of Orem's Self-Care Deficit Theory. The study sample was obtained using convenience sampling on one obstetric unit at a secondary level rural community hospital in northcentral Pennsylvania. The subjects were compiled over a two-week period and consisted of thirty obstetric patients (11 primiparas and 19 multiparas; 6 cesarean and 24 vaginal deliveries). All subjects voluntarily participated in the study and their anonymity was ensured. A descriptive correlational design was used and data was collected with the cooperation of unit nursing staff via the Maternal/Child Teaching Satisfaction Questionnaire which was developed by the researchers based on the format of the Stanford University Hospital Patient Education Follow-up Survey. The questionnaire was developed using the patient education packets provided by the hospital. A demographic questionnaire accompanied the satisfaction questionnaire when presented to the subjects. Subjects voluntarily returned the completed questionnaires, in sealed envelopes, to the nurses' station on the unit. Data analysis was completed through the BMDP New System utilizing Spearman's Rank Correlation and Mann-Whitney's Rank Sum tests. Significant relationships were found between the mean maternal satisfaction score and parity ($p=0.0029$), mean infant satisfaction score and parity ($p=0.0226$), and total mean satisfaction and parity ($p=0.0075$). Serendipitous findings included highly significant relationships between the overall satisfaction score and the total mean score as well as between the mean maternal satisfaction score and the mean infant satisfaction score. Generally, on the obstetric unit involved in the study, it was found that multiparous women are more satisfied with their discharge teaching than primiparous women. Based upon the results of this study, it was concluded that the teaching provided on the unit was adequate, but could be improved through increased concentration on the learning needs of primiparas while maintaining the quality of teaching provided to the multiparas on the unit. Recommendations for further research include adapting the questionnaire to encompass topics relating to emotional aspects of childbirth and addressing variables such as age of the subject and the number of years between previous births and current delivery, which were not analyzed in this study.