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A Descriptive Study of Childbirth Education and Its Influence on Women's Perception of Their Cesarean Birth Experience

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A DESCRIPTIVE STUDY OF CHILDBIRTH EDUCATION AND ITS INFLUENCE ON WOMEN'S PERCEPTION OF THEIR CESAREAN BIRTH EXPERIENCE

By

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VITA

The author, Linda S. Ungerleider, is the daughter of Ray Salsman and Bernadine (Simmons) Salsman. She was born August 13, 1941, in Lebanon, Missouri. She is married to Robert N. Ungerleider, and she is the mother of Michelle and Deborah Ungerleider.

Her elementary education was obtained in the public schools of Roxanna, Illinois, and her secondary education was obtained from Anacortes High School, Anacortes, Washington, where she graduated in 1959.

In September, 1959, she entered the School of Nursing at the University of Washington, in Seattle, Washington, and in June, 1963 she received her Bachelor of Science in Nursing degree. In June, 1963, she entered the American Peace Corps, and worked in Hyderabad, India, as a volunteer clinical instructor in community health and pediatrics at the Osmania University School of Nursing. In September, 1965, she was hired by the Peace Corps to work in various Peace Corps training programs in various universities in the United States as well as Director of Incountry Training Program in Maharashtra, India, in the summer of 1967.

From January, 1967 to June, 1967, she continued her professional career as a psychiatric nurse at Harborview

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In January, 1968, until July, 1969, she worked as staff nurse and then supervisor in Community Health Nursing, at the Visiting Nurses Association (VNA) of Middlesex County, New Brunswick, New Jersey.

She became an ASPO certified childbirth educator in 1973 and has been active in childbirth education since that time.

In 1979, she entered the Graduate School of Nursing, Loyola University, Chicago, Illinois, majoring in Maternal Child Health. In January, 1981, she completed all her course requirements for the Master of Science in Nursing Degree with the sole exception of obtaining final approval of her Master's thesis.

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Exam Grader for ASPO; she participated in the planning and the implementation of "Early Pregnancy Workshops" in the Evanston-Skokie area (Illinois); and she co-developed a pilot "Parenting Course."

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CHAPTER I

INTRODUCTION

Over the past five years, there have been many changes in obstetrical practices. The most significant have been the advancement of medical technology, increased consumerism and the attitude that the childbirth experience is to be a shared family affair. We can view these as positive advances. However, the complexities of obstetrical practice through the use of fetal monitoring, ultrasound, amniocentisis and many biochemical tests have not only increased the quality of life but also have increased the cesarean section rate in the United States as well as other countries. The rising incidence of cesarean section is a source of concern for both health professionals and consumers. From 1968 until 1977, the cesarean birth rate in the United States increased from 5.0% to 12.8% with some institutions reporting rates up to 25% (Marieskind 1980, ICEA REVIEW 1979). In a survey of 50 representative medical school department chairmen and individual obstetricians throughout the United States, the average cesarean section rate in 1966 ranged from 3 to 8%. In 1976 the average rate was 9 to 12% with some in the 15 to 18% range and with the highest being 23% (Jones 1976).

The medical profession considers this a positive advance in the quality of life. The medical reasons for cesarean birth are usually valid. However, the couple who is anticipating a vaginal delivery can find this sudden change in their expectations difficult to handle. For many, it is a disappointing experience. For some it can be a psychological trauma.

> A cesarean delivery must be done. The shock of that moment (3 years ago) has never gone away. Joe and I were crushed. Why? What was going to happen? (Walton 1977, p. 239).

The experience for this couple was difficult and disappointing. What makes this kind of birth so different? What are the feelings of the couple experiencing a cesarean birth? Can childbirth education make a positive difference in how a couple perceives the cesarean childbirth experience?

The purpose of this study was to answer the following question: Is there a difference in the perceptions of the childbirth experience of primiparous women who have participated in a childbirth education course and experienced an unexpected cesarean birth from those primiparous women who did not participate in a childbirth education class previous to an unexpected cesarean birth?

CHAPTER II

THEORETICAL FRAMEWORK AND THE REVIEW OF LITERATURE

The theoretical framework for this study is based on studies which indicate that knowledge about perceived differences in the birth experience can be directed toward improving the preparation of parents for a cesarean birth if it should become necessary (Marut & Mercer 1979). Few studies have been conducted or reported about the cesarean birth experience. Documented clinical observations have confirmed that little is known about cesarean birth couples' perceptions, fears or needs (Affonso & Stichler 1978, Hott 1980).

Rise in Cesarean Birth Rate

The National Center for Health Statistics using the Hospital Discharge Survey began gather data on cesarean births in 1968. From then until 1977 the rate of cesarean births in the United States had increased by 156%. During this same period the birth rate declined 12% (Marieskind 1979). The rapidly rising incidence of cesarean births is a source of concern for both health professionals and consumers. Evrard & Gold (1977) stress their concerns over the escalating rates. Consumer concern has been

demonstrated by the proliferation of lay literature regarding the effects of cesarean birth on the mother, father and infant. Jones (1976) also points out that there is a considerable variation in predicting future levels of cesarean birth rates in the United States. The estimates range from 8 to 25% (Jones 1976; Marieskind 1979; Evrard & Gold 1977).

In the past, the indications for cesarean births were mainly maternal, but currently the emphasis is on quality of life with the indications being fetal (Evrard & Gold, 1977, Jones 1976). Hughey et al. (1977) state that one important factor related to the increased incidence of cesarean delivery was due to increased incidence of dystocia, breech presentations, and a change in attitude toward these deliveries. With the ability to detect the discressed fetus, the rise in cesarean birth rate should be expected. The result has been the reduction in the perinatal mortality rate (Tutera & Newman 1973).

Many reasons for the rise in cesarean rate have been suggested. No single factor can be singled out as causing the increase. One factor interacts with another to keep the rate increasing (Marieskind 1979).

The Effects of Cesarean Birth on the Woman

Much has been written about pregnancy as a time of crisis. Clinical psychologists and psychiatrists warn that the stress of childbearing and parenthood may promote severe depression or even psychopathic behavior among mothers and fathers alike (Bibring 1959; Coley & James 1976; Hamilton 1962; Hartman & Nicoley 1966). However, the universality and intensity of this crisis experience has been questioned of late (Hobbs 1968; Hobbs & Cole 1976; Jacoby 1969). During the pregnancy the couple begin to view themselves and each other as parental figures and begin to formulate expectations for their behavior according to preconceived ideas of the role demands (Liebenberg 1967; Rubin 1975). The degree to which this transition period is difficult seems to be a function of the couple's preparation. This involves the ability to recognize and balance the competing demands of the pregnancy and other roles that the individual must fulfill.

Cesarean birth is a situational crisis in which the couple's anticipated experience of a vaginal birth has by necessity been changed to a cesarean birth. Caplan emphasizes that crisis is characteristically self-limiting (Parad 1965). The childbirth experience is a transitional period, which has the potential of increased psychological vulnerability and an opportunity for personality growth. The outcome of a cesarean birth experience is determined by

the kind of interaction which takes place during this period between the individual and the key figures in the emotional milieu (Affonso & Clark 1979).

The couple's cesarean childbirth experience influences how they can accomplish their role redefinition and any future childbearing experience.

> The prospect of surgery with any future gestation may affect not only the woman's present recovery, but also her thoughts and feelings about this infant, her future reproductive capacity and desires, and her feelings about herself (Mevs 1977).

Little is known about the unexpected cesarean birth couples' perceptions of their birth experience or how it affects their adjustment to parenthood. Affonso & Stichler (1977) asked women to describe their feelings prior to their cesarean delivery. These were "fear, dissatisfaction, anger or depression and relief at ending the whole labor process" (p. 89). During the delivery the women related the need for reassurance, verbal communication and touch. It is not stated in the study how many of the sample had articipated in childbirth education.

Most women expressed some displeasure and frustration at not being able to have a vaginal delivery (Jensen, Benson & Bobak 1977). Although these women expressed a sense of relief that their labor was finally completed, they often expressed a sense of failure because they felt they were not able to complete the expected process of bringing forth a baby (Affonso & Clark 1978). Many cesarean mothers

considered their deliveries abnormal and having social stigma. This suggests that women have a negative perception of their birth experience because of their cesarean delivery (Mercer & Marut 1979). Such negative experiences could create a difficult adjustment for those mentally prepared for a specific birth experience. How a woman perceives herself influences how she perceives childbearing (Mead & Newton 1967; Shereshefsky & Yarrow, 1973). The mother is not only physically affected by the stress of surgical birth, but she also experiences psychological and emotional stresses (Affonso 1977; Donovan & Allen 1977; Marut 1978; Mevs 1977). Hott (1980) reports that a group of women who went through an unanticipated and difficult operative or anesthetized delivery experienced definite changes in their concept of the ideal woman.

Childbirth Education

The development of parent support groups and cesarean support groups such as C/Sec is an indication of the consumer's desire and need for input in the labor and delivery experience. There are over 200 cesarean support groups in the United States. Their initial reason for organizing was to provide an empathetic atmosphere in which cesarean parents can discuss their feelings about abdominal delivery. "This is particularly important for women who have gone through prepared childbirth classes and who feel

a sense of failure at not delivering vaginally" (Marieskind 1979, p. 78).

Some of the factors that have been shown to contribute to childbirth outcome are training, attitudes toward childbirth, and desire for husband's presence. The assumption can be made that sharing the experience with one's partner forms a valuable bond of common experience, trust and admiration (Horowitz & Horowitz 1967). Mothers who have attended psychoprophylactic childbirth classes tend to have fewer obstetrical complications, to require less analgesic medication during labor and delivery, and to experience less anxiety about childbirth (Hughey et al. 1977). They also tend to express more enjoyment with the birth process (Charles et al. 1978). The attendance in childbirth preparation classes is related to less medication, less pain and a more positive experience (Enkin et al. 1972). Additionally, there is evidence that mothers who are prepared for labor and delivery experience greater maternal satisfaction (Chertok 1967) and a greater feeling of confidence in their husbands (Tanzer 1967). Greater awareness at birth, mediated by childbirth preparation, strongly predicted a positive attitude toward childbirth and a positive reaction to the new baby (Doering & Entwisle in Cogan 1980). Cronenwett & Newmark (1974) found that husbands who attended childbirth preparation classes had a greater involvement with childbirth than husbands who did

not attend classes. Husbands who attended classes felt they were able to help their wives during labor in practical and positive ways. Women with childbirth preparation felt more positively about their experiences giving birth (Tanzer 1967; Enkin et al. 1972; Cogan 1980).

> Childbirth preparation itself had a positive effect on the birth experience, regardless of the differences between gravidas who elected childbirth education and those that did not (Cogan 1980, p. 6).

Rubin (1968) proposes that one of the reasons childbirth preparation is important is that society places a high value on the ability to function in a "controlled" manner and to achieve one's original intentions. Colman and Colman (1971) state that ideally a woman should be informed about delivery, be aware of techniques and be in harmony with the people who will be with her during labor. If a woman's expectations of her delivery are not met and she has a cesarean, she will need emotional support to work through her experience (Colman and Colman 1971). Hott (1980) found that couples who had chosen PPM and had not been able to complete it "expressed feelings of emotional pain, disappointment and resignation" (p. 22). Doctors and childbirth educators have been surprised and concerned to learn that so many cesarean couples have strong negative feelings about the experience which can carry over to other areas of their relationship and influence their attitudes towards the baby, if left unresolved (Montrose 1978). "The

most difficult thing about having a c-section was how to respond to the people who expressed sorrow for us because we could not have a natural childbirth" (Webster 1978, p. 22).

Nevertheless, childbirth education can bridge the gap. Cesarean birth education that is included in a regular childbirth education class can be very helpful in the couples' adjustment to the experience. Education should also decrease the need for other couples to respond in a negative manner. Donovan (1978) states it is better to have too much knowledge and not need it than to have to make decisions in ignorance and fear.

For many couples, however, the cesarean birth experience does not seem to be a frustration or difficult adjustment. The lay literature and personal experiences indicate that for some the adjustment is minimal.

> We're only sorry we couldn't have shared the birth through to delivery, but we'll never be sorry we took the course. We learned so many valuable things that we'll always be able to use (Postpartum Report 1980).

Since there is a discrepancy in how people feel about their cesarean birth experience, there is a definite need to study this further. The effects of childbirth education have been documented in the literature. Education on cesarean birth seems necessary in PPM classes to decrease fear of the unknown. Further study is necessary to evaluate

whether the education received before the cesarean birth experience can decrease negative reactions and increase ability to participate as an informed consumer.

The proposed study was originally designed to investigate whether couples who have had at least a half hour of preparation in the context of a traditional childbirth education course would perceive a cesarean birth in a more positive manner than those who did not have any prior preparation. It was proposed that couples who participated in childbirth education classes with instruction on cesarean birth would perceive their childbirth experience in a more positive way. However, finding comparable groups of couples with and without childbirth education proved to be a difficult task for the following reasons.

1. The prevalence of childbirth education. Many of the referrals came from either the Northern Illinois Chapter, American Society of Psychoprophylaxis in Obstetrics instructors or M.D.'s who were supportive of childbirth education and encouraged their clients to go to classes.

At one hospital available to the researcher the labor and delivery staff evaluated their clients over a 6 month time span and found that all women who had delivered by cesarean birth had also taken a childbirth education class.

2. Those without childbirth classes were not comparable for various reasons. Many were minority women, including Hispanic and other non-English speaking women;

women who were diagnosed as being "high risk," low income women receiving public assistance and unmarried teenagers. The socio-economic characteristics of these women contrast markedly with those of the middle-class women who, along with their partners, frequent childbirth education classes conducted by NI-ASPO instructors primarily in the Chicago area.

Therefore, the design of the study was altered to a descriptive study focusing on the perceptions of women who had participated in childbirth education and who also had an unexpected cesarean birth.

The population for this study consisted of subjects with normal pregnancies, who began labor anticipating a vaginal delivery followed by an unexpected cesarean birth. Each subject had childbirth education including cesarean birth material, and each had a support person with her in labor.

Research Questions

1. What are the perceptions of a primiparous woman who anticipates a vaginal birth and experiences a cesarean birth?

2. Does the length of labor experienced by the women in this study affect the perceptions of their experience?

3. Does the time interval between the delivery experience and the interview affect their perceptions of

the experience?

Definition of Terms

1. Cesarean section is defined as delivery of the infant through incisions in the abdominal and uterine cavities (Affonso & Clark 1979, Eastman & Hellman 1972). The researcher will use the term cesarean birth instead of section because it is the birth of an infant not just a surgery to remove a diseased part of the body.

2. Unexpected cesarean birth is defined as a cesarean delivery that was decided upon when the woman arrived at the hospital or after labor has started, irrespective of the medical reason.

3. Childbirth preparation for the purpose of this study is defined according to the CANDIDATES GUIDE TO CERTIFICATION for the American Society for Psychoprophylaxis in Obstetrics (ASPO). The couples who were selected attended classes conducted by instructors trained and nationally certified by the Northern Illinois Chapter of ASPO (NI-ASPO).

4. PPM stands for the Psychoprophylactic Method better known as Lamaze. It is a set of techniques designed to provide maximum ability to cope with the labor and delivery experience by the parturient. These tools include physical exercises to prepare the body for birth and the postpartum return to a pre-pregnancy condition; relaxation

techniques, breathing and sensory focus, expulsion techniques, and support activities for a support person. In addition, information is provided regarding medication, variations in labor and cesarean birth.

5. Couple is defined as a pregnant primiparous woman and the person who accompanied her to the childbirth class as her support person.

6. Perception is defined as a mental process by which data, intellectual, sensory and emotional, are organized meaningfully (Haber et al. 1978).

Significance of the Study to Nursing

Because of the rising cesarean birth rate, it is imperative that nurses become more aware of the physical, emotional and psychological effects of a cesarean birth on the mother, the father and the infant. Nurses must be aware of the effects of a cesarean birth on a couple so they can provide the environment and furnish support which can decrease the couple's anxieties related to their childbirth experience. Therefore, information about a typical couple's experiences and perceptions has obvious significance for nursing and childbirth education.

CHAPTER III

METHODOLOGY

The purpose of this study was to investigate the perceptions of women who participated in childbirth preparation and experienced an unexpected cesarean birth. As indicated previously, it was impossible to find a control group comparable to the experimental group from the available population, therefore a descriptive methodology was adopted using interviews, questionnaire responses and informational data.

A nonprobability sample of 22 primiparous women who delivered at various hospitals in the Chicago area between July and October, 1980 was obtained. They were referred to the researcher by their physician or NI-ASPO instructor. All subjects volunteered for the study. The researcher contacted the subjects and all interviews were arranged at the subjects' convenience. All subjects had participated in a childbirth education class which had included cesarean birth information. All subjects had normal pregnancies and had begun labor anticipating a vaginal delivery. The subjects were between the ages of 18 and 34 with a mean age of 28.2. Their partners' ages ranged between 18 and 46, with a mean age of 30.3. Most partners

were the subject's husband; one came with her mother, and another with a friend. The interview was conducted between the 14th and 150th day after delivery. The mean was 72.6 days after delivery. To decrease the possibility of post-partum pain as an intervening variable, the interviews were not conducted until at least fourteen days after delivery. All subjects had their partner with them during labor and two subjects also had their partner with them during delivery. All had stated their desire to have their partner in the delivery room. Nineteen of the 22 subjects stated that hospital policy did not allow them to enter the delivery room. Two were allowed to enter the delivery room and one chose not to go into the delivery room.

This study was presented to and approved by the Loyola University of Chicago Institutional Review Board for the Protection of Human Subjects. In addition, information on the purposes of this research project was sent to the participating physicians (see Appendix A).

Procedure

The aim and purposes were explained to the NI-ASPO instructors at a regional meeting. Those instructors who had potential subjects referred them to the researcher, who contacted them, and explained the study. All subjects contacted were willing to participate in the study. Several physicians referred couples to the researcher as well. Those women who qualified and were willing to participate

were given information on the research and a consent form to sign (see Appendix B). Interviews were done in the subjects' homes at their convenience. Each interview was approximately 1 to 1 1/2 hours in length. Subjects were informed that they could withdraw from participation in this study at any time.

To guarantee confidentiality, the identity and answers to the instrument remain known only to the researcher. A coding system designed by the researcher was used in data analysis.

Nature of the Data

Quantitative and qualitative data were obtained in this study. The quantitative data were analyzed using inferential statistical procedures, and the qualitative data were summarized through descriptive statistical procedures.

Instruments

Data were collected by the researcher with two instruments. One was a Cesarean Birth Attitude Questionnaire (CBAQ). The second instrument was an open-ended interview schedule which also elicited informational data (see Appendix C). These methods were chosen to allow the women to express their feelings regarding their cesarean birth experience.

Cesarean Birth Attitude Questionnaire (CBAQ)

The Cesarean Birth Attitude Questionnaire is a 5 point Likert-type scale consisting of 34 closed response questions. The summation feature of such scales made it possible to make very fine discriminations among individuals with different points of view. Likert scales have a number of technical properties which enhance their analytical ability (Polit & Hungler 1978). This questionnaire was adapted by Mercer and Marut from a 15-item questionnaire developed by M. Samko and L. Schoenfeld (1975). The adapted scale was based on a pilot study of mothers having a cesarean birth (Marut 1978). Later Marut and Mercer utilized the questionnaire in a research study comparing primiparas' perceptions of vaginal and cesarean births.

> To enhance content validity, the adaptation was made utilizing the findings from Marut's pilot study of women's perceptions of their cesarean birth and available literature. The questionnaire had alpha correlation coefficient reliability for internal consistency of 0.83 (Marut 1980, p. 108).

This researcher added five informational type questions to the scale that were relevant to this study (see Appendix C: Questions 30-34). They were related to the partner and his/her participation in labor and delivery. If he/she could not participate in delivery, why not? How long was the labor? Did they participate in childbirth education classes that included cesarean birth information?

Interview

At the beginning of the interview, the researcher obtained information data from the subjects (see Appendix D). This included information about age, education, race, as well as information regarding subject's labor experience and her infant. An interview is a quick and efficient way to get helpful information to further evaluate the specific subjects (Polit & Hungler 1978).

The interview schedule consisted of open-ended questions to allow the women to express their feelings about labor and cesarean birth experiences in their own words after beginning the thought process with the closed reponse questionnaire (see Appendix D). The beauty of the open-ended question lies in its freedom and spontaneity (Warwick & Lininger 1975). By creating an atmosphere for discussion, the respondents felt more free to express their feelings. In addition, this methodology was chosen because the interviewer's presence permitted greater flexibility in asking questions and in clarifying ambiguous answers. This has important significance to a couple's personal perception of a life experience such as the birth of their child. Childbirth educators and cesarean birth groups have documented the need for women to relate their childbirth experience and evaluate the meaning of it (Cogan 1980). Also, unlike self-administered questionnaires, the personal

interview is not highly dependent on literacy, educational level or visual acuity. It also ensured control of the sequence of the questions and other aspects of the data collection (Warwick & Lininger 1975). The verbal responses were recorded as close to verbatim as possible.

Assumptions

This study assumed the following:

1. Knowledge of cesarean birth gained before the actual cesarean birth experience can change the woman's perception of the experience.

2. Knowledge gained before the actual birth experience can help the couple's adjustment to the experience and to their newborn.

3. The interview and Likert type scale questionnaire are valid instruments to measure the perceptions of women experiencing a cesarean birth.

4. The subjects would be willing to share their perceptions of their childbirth experience.

5. The women would be able to communicate their feelings.

6. The subjects would be honest in communicating their feelings.

7. The unexpected nature of the cesarean birth would be traumatic for many women but they would be able to participate in the study.

Limitations

The findings of this study are limited to a population of women experiencing a cesarean birth in the Chicago area. The results of this study can be applied only with great caution to other populations of women experiencing a cesarean birth with different cultural, ethnic and demographic variables.

The major limitations of this study lie in the inability to randomize, as is true in most clinical studies. Randomization is not possible for the following reasons:

1. The sample size and makeup were limited by reason of the fact that subjects were referred by physicians and childbirth educators who volunteered to participate in the study.

2. The women who participated were women who gave their voluntary consent and who were otherwise able to participate.

3. The women who participated gave birth albeit by unexpected cesarean birth, within a brief 3 month period of time. Thus, out of the class comprised of women who experience an unexpected cesarean birth whether having had childbirth education or not, only the above described women were available to the researcher. Hence, a random sampling of all such women is not possible to achieve. A future research study conducted in cooperation with a large obstetrical census of a medical facility conducted

over an extended period of time, could conduct such a study free of the above limitations.

CHAPTER IV

DATA ANALYSIS

Introduction

Data from 22 women who had unexpected cesareans were collected over a three-month period of time between September and November, 1980. Two instruments, the Cesarean Birth Attitude Questionnaire (CBAQ) and an interview guide, were used. The Cesarean Birth Attitude Questionnaire was scored on a 5-point Likert scale with 5 being the most extreme or strongest response. A score was obtained for each individual and the means of all the responses to each question were computed. Computer services were used to analyze the data. Kendall Tau correlations between individual questions and t-tests for groupings of respondents based on hours in labor and the time interval between delivery and the date of interview were computed. The .05 level of significance was set. The descriptive data and open ended responses were summarized in frequency distributions. The data were coded, grouped and tallied.

Descriptive Data

The biographical data showed that the mean age of the respondents was 28.1. The partner's mean age was 30.2. The mean for years married was 4.7. The mean income was

approximately $30,000. The mean level of education was some college for the women and a college degree for the men. All but three of the subjects were white; two were oriental and one was black. The reasons given for the cesarean birth were cephalopelvic disproportion 22.7%; failure to progress 40.9%; breech presentation 18.2%; and fetal distress 18.2% (Table 1). The mean birth weight of the infant was 7 lb. 12 oz. (Table 2). The mean Apgar score was 9 at 5 minutes after birth. The mean time interval between delivery and when the mother first fed her infant was 20.8 hours (Table 3). At the time of the interview, 17 women (76.5%) were breast feeding and 5 (22.5%) were bottle feeding their infant. Three women (13.6%) had a general anesthesia for delivery and 19 (85.5) had a regional anesthesia for delivery.

Results of Cesarean Birth Attitude Questionnaire (CBAQ)

The following four types of data analysis were used:

1. Computation of means for all questions
2. Relative frequencies of high and low responses
3. Kendall Tau correlation matrix
4. t-testing of means for groups based on
    a. Length of labor
    b. Time of interview

TABLE 1

REASON FOR CESAREAN BIRTH

	Absolute Frequency	Relative % Frequency	Cumulative Adjusted Frequency
Cephalopelvic Disproportion	5	22.7	22.7
Failure to Progress	9	40.9	63.6
Breech Presentation	4	18.2	81.8
Fetal Distress	4	18.2	100.0
Total Cases	22	100.0	

Valid Cases	22
Missing Cases	0

TABLE 2

BIRTH WEIGHT FREQUENCY OF NEWBORNS
IN CESAREAN BIRTH STUDY

Birth Weight	Absolute Frequency	Relative Frequency	Cumulative
Under 6 lbs.	3	13.6	13.6
6-6 lbs. 15 oz.	3	13.6	27.2
7-7 lbs. 15 oz.	4	18.2	45.4
8-8 lbs. 7 oz.	4	18.2	63.6
8 lbs. 8 oz. - 9 lbs.	4	18.2	81.8
Over 9 lbs.	4	18.2	100.0
Total	22	100.0	

Mean Birth Weight: 7 lbs. 12 oz.

TABLE 3

FREQUENCY OF FIRST NEWBORN FEEDING
AFTER THE CESAREAN BIRTH

Number of Hours After C-Birth	Absolute Frequency	Relative Frequency	Cumulative
1 to 4 hours	6	27.3	27.3
5 to 10 hours	3	13.6	40.9
10 to 16 hours	3	13.6	54.5
17 to 24 hours	6	27.3	81.8
Over 25 hours	3	13.6	95.4
Missing response	1	4.6	100.0
Total	22	100.0	

Mean hours after birth for first feeding was 20.8 hours.

One subject was unable to recall when she first fed her infant.

Computation of Means

Table 4 reports the data for individual questions on the CBAQ. Because some subjects failed to answer all of the questions, means were computed on the basis of the number of answering respondents. The possible responses for Questions 1 to 26 varied from 1 to 5. A "1" response indicated "not at all"; while a "5" response indicated "extremely." Questions 27 and 28 refer to contact with their infant, and ranged from a "1" response for "8 hours or longer" to a "5" response for "immediately" (Tables 5 and 6). Questions 29, 30 and 31 are scored the same as Questions 1 to 26. Question 32 elicits the reason the partner did not participate in delivery (Table 7). Question 33 elicits hours in labor before C-birth (Table 8) and Question 34 elicits childbirth information (see Appendix C).

Table 9 presents the questions with sample mean values at either extreme--i.e., those means of 4 or above or below 2. The extremely high means include those questions related to relaxation in delivery, partner's help in labor, awareness of labor and partner's presence in labor.

The two extremely low means were questions related to the presence of partner in delivery (Table 7) and perceptions of delivery as painful. Perceptions of delivery as not being painful is an expected response because of the regional anesthesia. However, the low mean for presence

TABLE 4

CESAREAN BIRTH ATTITUDE QUESTIONNAIRE

	Variable	Mean	Standard Deviation	# of Cases
Q 1.	Confidence in labor	3.6364	1.0022	22
2.	Confidence in delivery	3.7143	1.5213	21
3.	Relaxed in labor	3.0909	1.0650	22
4.	Relaxed in delivery	4.000*	1.4577	17
5.	Success with techniques	3.9545	0.9501	22
6.	Pleasant feeling state	2.8500	1.2680	20
7.	Control in labor	3.7727	0.9726	22
8.	Control in delivery	3.7368	1.5579	19
9.	Expectation vs. reality of experience	2.5000	1.3715	22
10.	Useful member of OB team	3.8571	1.2762	21
11.	Partner useful in labor	4.3636*	1.2927	22
12.	Partner useful in delivery	2.4500	1.8771	20
13.	Aware of events during labor	4.3182*	0.8387	22
14.	Aware of events during delivery	3.9524	1.3220	21
15.	Unpleasant feeling state during delivery	2.5714	1.6903	21
16.	Labor as painful	3.7273	1.4859	22
17.	Delivery as painful	1.9524*	1.4655	21
18.	Scared during delivery	2.5714	1.5353	21
19.	Worry over baby's condition - labor	2.8182	1.2203	22

TABLE 4 (CONT'D)

Variable	Mean	Standard Deviation	# of Cases
Q 20. Worry over baby's condition - delivery	2.5238	1.5690	21
21. Equipment bother her	2.3810	1.4655	21
22. Experience realistic as opposed to dreamlike	3.3333	1.3540	21
23. Choices of intervention	2.8571	1.3887	21
24. Partner review labor experience	3.8182	1.0970	22
25. Feel better after review	3.5455	1.2994	22
26. Pleased with delivery	3.6364	1.4653	22
27. Touched baby	3.3636	1.2927	22
28. Held baby	2.3182	1.2105	22
29. Enjoyed holding baby	3.7727	1.5097	22
30. Partner with her in labor	4.7727*	0.8691	22
31. Partner with her in delivery	1.5000*	1.3002	22

*Response either 4 or above or below 2.

TABLE 5

CONTACT WITH INFANT AFTER DELIVERY

Question 27

Touched Baby In Hours Of Time	Absolute Frequency	%	Relative & Adjusted Frequency	%	Cumulative Adjusted Frequency	%
8+ Hours	2		9.1		9.1	
3-7 Hours	3		13.6		22.7	
2 Hours	8		36.4		59.1	
1 Hour	3		13.6		72.7	
Immediately	6		27.3		100.0	
Total Cases	22		100.0			

Missing Cases 0

TABLE 6

HELD BABY AFTER DELIVERY

Question 28

Held Baby In Hours Of Time	Absolute Frequency %	Relative & Adjusted Frequency %	Cumulative Adjusted Frequency %
8+ Hours	8	36.4	36.4
3-7 Hours	3	13.6	50.0
2 Hours	8	36.4	86.4
1 Hour	2	9.1	95.5
Immediately	1	4.5	100.0
Total Cases	22	100.0	

TABLE 7

CBAQ #32

REASONS PARTNER DID NOT PARTICIPATE IN DELIVERY

Reason	Absolute Frequency	Relative Frequency
Hospital Policy	19	86.4%
Partner Preference	1*	4.5%
Laboring Woman's Preference	2	9.1%
Emergency Situation	7	31.8%

There could be more than one response, i.e., hospital policy and emergency situation; therefore, more than 100% cumulative frequency.

*Three partners had the opportunity to participate in delivery; one chose not to do so.

TABLE 8

HOURS IN LABOR BEFORE CESAREAN

Number of Hours	Absolute Frequency	%	Relative & Adjusted Frequency	%	Cumulative Frequency
1	3		13.6		13.2
4	1		4.5		18.2
10	1		4.5		22.7
11	1		4.5		27.3
12	1		4.5		31.8
16	1		4.5		36.4
18	2		9.1		45.5
24	2		9.1		54.5
26	2		9.1		63.6
30	2		9.1		72.7
32	1		4.5		77.3
36	2		9.1		86.4
42	1		4.5		90.9
54	1		4.5		95.5
60	1		4.5		100.0
Total Cases	22		100.0		

Missing Cases 0

TABLE 9

RESPONSE MEANS AT EACH END
OF THE QUESTIONNAIRE SCALE

Question	Description of Question	Mean
	High	
4	Relaxation in delivery	4.00
11	Partner's help in labor	4.3636
13	Awareness in labor	4.3182
30	Partner's presence in labor	4.7727
	Low	
17	Delivery as painful	1.9524
31	Partner in delivery	1.5000

Mean of 4 = Indicates relaxed, though not extremely.

Mean of 1 = Indicates not at all.

of the partner in delivery indicates that few partners attended delivery. Responses to Question 32 showed that in all but two incidences couples desired to share the childbirth experience. This indicates that hospital policy is still unresponsive to the couples' wishes.

In summary, the range of means was between 1.5 and 4.7. Twenty-five out of the thirty-one questions (80%) had response means in an intermediate range greater than two and less than four. Only seven evoked extreme responses.

Relative Frequency of High and Low Responses

When the numbers of high and low responses to individual questions were tallied, it was found that the respondents answered 17 out of 31 questions with a 4 or 5 response (53%) and 10 out of 32 questions with a response of 1 or 2 (31%). Table 10 shows the relative frequencies at either end of the scale.

More than half (68.2%) of the respondents gave an "extremely" or a "4" or "5" response to the question describing labor as painful. This is interesting because even though the respondents felt labor was painful, they answered other questions indicating that they felt confident, in control, aware and relaxed in labor and delivery even though the outcome was an unexpected cesarean birth.

Questions receiving a high percentage of "not at all"

TABLE 10

TABLE OF RELATIVE FREQUENCIES

Item	Relative Frequency %	
	Response 4 & 5	Response 1 & 2
Confidence In Labor	59.1	
Confidence In Delivery	59.1	
Relaxation In Delivery	54.6	
Success With Methods	72.7	
Control In Labor	59.1	
Control In Delivery	59.1	
Expectations Versus Reality		50.0
Member of OB. Team	63.3	
Partner's Help In Labor	86.3	
Partner's Help In Delivery		*54.5 (1)
Awareness Of Labor Events	86.4	
Awareness Of Delivery	68.2	
Unpleasantness In Delivery		54.5
Labor As Painful	63.7	
Delivery As Painful		68.2
Scared In Delivery		54.5
Worry Over Baby's Condition-Delivery		52.4
Equipment Bother In Labor		57.2
** Delivery Real Or Dreamlike	47.6	
** Choice Of Intervention During Labor		47.6
Partner Review Labor Experience	63.6	

TABLE 10 (CONT'D)

Item	Relative Frequency %	
	Response 4 & 5	Response 1 & 2
Felt Better After Labor Review	59.6	
Pleased With Delivery	59.1	
Held Baby		50.0
Enjoyed Holding The First Time	59.0	
Partner In Labor	95.4	
Partner In Delivery		*86.4 (1)
Hospital Policy Reason Partner Not In Delivery		86.4

*Response was only 1 = not at all

**Near the 50% cutoff

responses are those relating to the partner's ability to be present and help in delivery, the ability to hold infant right away and the ability to have choices in labor. This would seem to correspond with the respondents' desire to be active participants in this important life event and the need for medical routines to be re-evaluated so the presence of a support person can be experienced in cesarean birth delivery as well as labor.

Kandall Tau Correlation Matrix

The Kendall Tau correlation matrix was computed on each question on the questionnaire (see Appendix E). This was done to see if any questions were significantly correlated. The correlation coefficient at 0.05 significance is .31. Some significant correlations that emerged were as follows:

Question 6: How pleasant or satisfying was the feeling state you experienced during delivery?

This question correlates with the following:

	Positively		Negatively
2	confidence in delivery	7	control in labor
4	relaxation in delivery	15	unpleasant feeling state during delivery
9	expectations vs. reality	17	delivery as painful
14	aware of events during delivery	18	scared during delivery

It suggests that the more confident, relaxed and aware of delivery the respondent was the more pleasant the feeling state. It also suggests that the feeling state was more pleasant if the respondents were aware of the delivery events. It suggests further that the less control the respondent had in labor, the more negatively she perceived the delivery as well as increasing her fear.

Question 5: How successful were you in using the breathing or relaxation methods to help with contractions?

This question correlates with the following:

	Positively	Negatively
1	confidence in labor	None
3	relaxation in labor	
7	control in labor	
10	useful member obstetric team	
15	unpleasant feeling state-delivery	

It suggests that if the subject was confident and in control during labor, she also felt like an active participant in her labor experience but perceived delivery as an unpleasant feeling state because it was not what she was working toward during her labor.

Question 9: To what extent did your experience of having a baby go along with the expectation you had before labor began?

This question correlates with the following:

	Positively		Negatively
1	confidence in labor	17	delivery as painful
2	confidence in delivery	19	worry over baby in labor
3	relaxed in labor		
4	relaxed in delivery		
5	pleasant feeling state-delivery		
8	control in delivery		
11	partner's help in labor		
12	partner's help in delivery		
14	aware of events in delivery		
26	pleased with delivery outcome		
31	partner with during delivery		

This suggests that if the respondent experienced the above positive perceptions, she was more apt to feel that her expectations were realized. It is only natural to assume that if delivery is painful and subject is worried about the infant the reality of the situation is not what was expected.

Question 18: How scared were you during delivery?

This question correlates with the following:

Positively	Negatively
17 delivery as painful	1 confidence in labor
	2 confidence in delivery
	4 relaxation in delivery
	6 pleasant feeling state--delivery
	8 control in delivery
	13 awareness of labor events
	23 choices in interventions
	25 felt better after labor review

These correlations suggest that pain increases fear and concern regarding the labor experience. It also decreases the respondent's positive perceptions of the experience.

Question 28: How soon after delivery did you hold your baby?

This question correlates with the following:

Positively	Negatively
8 control in delivery	15 unpleasant feeling state-delivery
11 partner help in labor	
13 aware of labor events	
27 touched baby after delivery	

The positive correlations suggest that the respondent's perceptions of her control in delivery, partner's help and awareness of labor events were directly correlated with how soon after delivery she held her baby.

Question 29: Were you able to enjoy holding your baby the first time?

This question correlates with the following:

	Positively	Negatively
24	partner reviewed labor experience	None

This is the only significant correlation. If partner reviewed her labor experience with the respondent, her ability to enjoy her baby for the first time was increased.

Question 33: How long was your labor?

This question correlates with the following:

	Positively	Negatively
4	relaxed in delivery	None
16	labor as painful	

These correlations suggest that the longer the labor, the more painful it was perceived by the respondent. It also suggests that the respondent was more relieved to finally experience the delivery. This goes along with the interview data.

Question 26: Were you pleased with how your delivery turned out?

This question correlates with the following:

Positively		Negatively	
2	confidence in delivery	16	labor as painful
9	expectations of labor experience	20	worry regarding baby-delivery
12	partner's help in delivery		
26	partner with during delivery		

The above correlations suggest that if labor is perceived as painful and the respondent is concerned about the infant's condition during delivery, the overall experience is not as satisfying to the respondent. If, on the other hand, the respondent felt confident, had support of her partner and the labor experience was as expected, the respondent was pleased with the delivery. It suggests that the perception of pain interferes with a respondent's ability to look upon the labor and delivery experience as a positive one.

t-testing

To facilitate analysis of perceptions of the delivery experiences, the research sample was grouped in two ways to correspond with the research questions:

Does the length of labor experienced by the women in this study affect the perceptions of their experience?

Does the time interval between the delivery experience and the interview affect their perception of the experience?

The two groups were determined by a natural break in the sample.

Length of Time in Labor

Twelve women had been in labor 24 hours or more before the cesarean was undertaken. They are designated Group 1. Ten women had been in labor 18 hours or less before a cesarean birth was imminent. They are designated Group 2 (see Table 11).

t-tests comparing groups' means for all questions were done. The following two questions showed a significant difference at the 0.05 level (see Table 12).

1. Question 19: Worry over baby's condition in labor.
2. Question 31: Partner in delivery.

Group 1, who were in labor longer, had a mean response of 3.4 to Question 19, indicating that these women were at least moderately concerned over their baby's condition, while those who did not labor as long were not as concerned. Therefore, it seems that length of time in labor increases concern for the infant's condition. Group 2, whose labors were shorter, had a significantly higher mean for presence of partner in delivery. This reinforces the assumption that hospital policy is not conducive to presence of a

TABLE 11

HOURS IN LABOR BEFORE CESAREAN
SHOWING t-TEST GROUPS

Number of Hours	Absolute Frequency	%	Relative & Adjusted Frequency	%	Cumulative Frequency
		Group 2			
1	3		13.6		13.2
4	1		4.5		18.2
10	1		4.5		22.7
11	1		4.5		27.3
12	1		4.5		31.8
16	1		4.5		36.4
18	2		9.1		45.5
		Group 1			
24	2		9.1		54.5
26	2		9.1		63.6
30	2		9.1		72.7
32	1		4.5		77.3
36	2		9.1		86.4
42	1		4.5		90.9
54	1		4.5		95.5
60	1		4.5		100.0
Total Cases	22		100.0		

Missing Cases 0

TABLE 12

t-TEST OF LABOR HOURS

Group 1: 19 hours or more in labor

Group 2: 18 hours or less in labor

Question	# of Cases	Mean	Standard Deviation	Standard Error	F Value	2-Tail Probability
Q19 - Worry - Baby's Condition Labor						
Group 1	12	2.3333	1.155	0.333	1.15	0.843
Group 2	10	3.4000	1.075	0.340		
Q31 - Partner in Delivery						
Group 1	12	1.0000	0.0	0.0	0.0	1.000
Group 2	10	2.1000	1.792	0.567		

(continued)

TABLE 12

(CONTINUED)

Group 1: 19 hours or more in labor

Group 2: 18 hours or less in labor

Question	Pooled Variance Estimate t Value	Pooled Variance Estimate Degrees of Freedom	Pooled Variance Estimate 2-Tail Probability	Separate Variance Estimate t Value	Separate Variance Estimate Degrees of Freedom	Separate Variance Estimate 2-Tail Probability
Q19 - Worry - Baby's Condition Labor						
Group 1 Group 2	-2.23	20	0.038	-2.24	19.72	0.037
Q31 - Partner in Delivery						
Group 1 Group 2	-2.14	20	0.045	-1.94	9.00	0.084

support person in delivery.

Days between Interview Date and Delivery Date

The second grouping was based on days from delivery to day of the interview for this study. Group 1 consisted of respondents interviewed 60 days or more after the birth of their infant. Group 2 was interviewed prior to 60 days after the birth (see Table 13). Both groups consisted of 11 women. There were significant differences in groups' means in the four following questions (see Table 14):

The mean was significantly higher in Group 1 for the following three questions (refer to page 37):

Question 5: Success with the methods

Question 7: Control in labor

Question 24: Partner review labor

The mean was significantly higher in Group 2 for the following question:

Question 6: Pleasant feeling state

This suggests that with time women perceive their experience more pleasantly than immediately after the delivery. It suggests the respondents need time to put the cesarean birth experience into a clear perspective. With time, the cesarean birth experience seems to appear more positive.

TABLE 13

DAYS BETWEEN DELIVERY DATE AND INTERVIEW DATE

Number of Days	Absolute Frequency	%	Relative & Adjusted Frequency	%	Cumulative Frequency
	Group 2				
14	2		9.1		9.1
21	1		4.5		13.6
22	1		4.5		18.2
23	1		4.5		22.7
29	1		4.5		27.3
36	1		4.5		31.8
50	1		4.5		36.4
53	2		9.1		45.5
54	1		4.5		50.0
	Group 1				
61	1		4.5		54.5
78	1		4.5		59.1
87	1		4.5		63.6
101	1		4.5		68.2
105	1		4.5		72.7
114	1		4.5		77.3
116	1		4.5		81.8
119	1		4.5		86.4
147	1		4.5		90.9
148	1		4.5		95.5
150	1		4.5		100.0
Total Cases	22		100.0		

TABLE 14

t-TEST OF INTERVIEW GROUPS

Group 1: Interviewed after 60 days

Group 2: Interviewed before 60 days

Question	# of Cases	Mean	Standard Deviation	Standard Error	F Value	2-Tail Probability
Q5 - Success With Methods						
Group 1	11	4.3636	0.809	0.244	1.33	0.658
Group 2	11	3.5455	0.934			
Q6 - Pleasant Feeling State						
Group 1	10	2.3000	1.059	0.335	1.43	0.606
Group 2	10	3.4000	0.400			
Q7 - Control In Labor						
Group 1	11	4.2727	0.786	0.237	1.32	0.666
Group 2	11	3.2727	0.905	0.273		
Q24 - Partner Review Labor						
Group 1	11	4.2727	0.905	0.273		
Group 2	11	3.3636	1.120	0.338	1.53	0.511

(continued)

TABLE 14

(CONTINUED)

Group 1: Interviewed after 60 days

Group 2: Interviewed before 60 days

	Pooled Variance Estimate			Separate Variance Estimate		
Question	t Value	Degrees of Freedom	2-Tail Probatility	t Value	Degrees of Freedom	2-Tail Probability
Q5 - Success With Methods						
Group 1	2.20	20	0.040	2.20	19.60	0.040
Group 2						
Q6 - Pleasant Feeling State						
Group 1	-2.11	18	0.049	-2.11	17.46	0.050
Group 2						
Q7 - Control in Labor						
Group 1	2.77	20	0.012	2.77	19.62	0.012
Group 2						
Q24 - Partner Review Labor						
Group 1						
Group 2	2.09	20	0.049	2.09	19.15	0.050

Interview Data

Introduction

The interview data were acquired through open-ended questions to the subjects. The reason for this was to allow the subject the opportunity to express in her own words how she felt about her cesarean birth experience. The interviewer found that the subjects were very willing to talk about their experiences, in fact, 11 subjects stated a need to talk about their experience in order to help them gain a better perspective. The interviews lasted approximately an hour. The following areas were the focus of the open-ended questionnaire. This information is starred on the biographical information sheets (see Appendix D).

As this information was analyzed, the researcher was able to divide the responses into feelings about childbirth education, partners' participation and feelings regarding the C-birth experience, feelings at the time the C-birth was imminent, attitudes about the anesthesia they received and their responses to infants after the C-birth.

Childbirth Education

Childbirth education was mentioned by many as a "life saver." Only one woman responded that it was "worthless" and only two people commented negatively about childbirth education. The negative comments were related to the inability to share the experience and Lamaze in general such

as "Lamaze was worthless," "nothing helped." The education gained was not mentioned as a negative. The comments fell into four categories:

a. Education acquired through childbirth education

b. Lamaze techniques

c. Sharing the experience

d. Support person

The following comments illustrate some of the typical subjects' feelings toward their childbirth education class (Lamaze) and their cesarean births.

Education

"The most helpful input at the time of the cesarean was the things I learned in my Lamaze class and the confidence I had in my doctor."

"The Lamaze instructor was very supportive, provided extra books and information. The more information, the better we felt."

"The handouts and information in Lamaze class helped us very much."

"My education from the prepared childbirth classes was the most helpful input to me at the time of my cesarean birth."

"I found several sheets given to me in my Lamaze class helpful as I tried to work through my feelings; also talking with others who had cesareans helped me. It took me several weeks to feel confident that the right decision was made."

Lamaze Techniques

"The breathing was something to look forward to in labor."

"I used my Lamaze breathing for all the painful procedures, especially when they were tugging on the placenta and it did not want to come out."

"I could not have tolerated labor without Lamaze. It would have been impossible."

"Class helped me realize what my options were."

"Due to our Lamaze class, we were prepared for what was going to happen after the decision was made. I also knew I had been given every chance to deliver and it was not a hasty choice on my doctor's part."

"Because of Lamaze I had discussed the possibility of a cesarean birth previous to my delivery. This helped me accept the decision."

"Felt Lamaze was worthless at the time I was told I was to have a cesarean birth. I did not listen to the instructor when she talked about cesarean in class; in fact, I thought she talked too much about it. It was not what I wanted to hear."

"Lamaze prepared me for any type of delivery."

Sharing the Experience

"Class helped my husband understand me more and especially understand what I was going through regarding

the cesarean birth."

"My husband and I developed a special closeness as a result of our Lamaze training and the togetherness we experienced."

"I was amazed at how tired you get as a coach. It was 40 hours of hard work" (partner's comment).

"Surprised and very disappointed that my husband was not able to go in after discussing it with the doctor and his saying OK. The anesthesiologist said no!"

"Disappointed! We lost the opportunity to share the experience and later other people's responses made me feel as though I had failed."

Support Person

Eighty-five percent of the subjects interviewed expressed their appreciation for their husbands and their support during the labor and delivery experience. There were no negative comments expressed regarding their partners' participation. The following are examples of some of their comments.

"My husband was most helpful because of his love, support and enthusiasm in spite of the unexpected cesarean birth."

"My husband's verbal support and all the help from the doctors and nurses."

"Prayer and the support of my husband was the most

helpful input in this experience."

"My husband felt informed and his knowledge helped a great deal."

"My husband's knowledge and the fact that the baby appeared very strong on the electronic fetal monitor was the most helpful input."

Perceptions of Cesarean Birth At Delivery

When asked how they felt at the time they were aware that a cesarean birth was inevitable, the responses fell into four categories.

Relief

"Thank you; anxious to see my little guy and relieved. My husband was confident and sure of himself. He said waiting was the most difficult. He wanted to be with me in the delivery room."

"Very satisfied at the outcome; no regrets; thrilled he was present for the delivery and considers it the high point of his life. If he had not been able to be there, he would have been disappointed because he was so prepared for the delivery."

"I feel positive about it. I don't feel I was cheated. Being awake helped. He feels the same way; just concerned about our health and safety and after all those hours of labor, he felt I'd done my part."

"Relieved, very relieved; I had been hinting 'perhaps it is time'. My husband was relieved, no disappointment. He wanted the best thing for me and the baby. We only wanted to be awake and to be together (which they were).

"I was elated. My husband was crying but said he was glad it was going to be over soon."

Disappointment

"Very upset and I would cry when talking about it."

"I would have liked him to stroke my hand and forehead during delivery. The nurse was doing that, but I would have preferred my husband."

"My husband was very surprised and skeptical. He wanted to see the sonogram results first."

Both Relief and Disappointment

"Relieved, too tired from so much pain; I just wanted to rest and could not wait for the anesthesia to take place. My husband was reluctant, worried and concerned. He wanted to be with me. We were very disappointed we could not be together. We had worked very hard to birth our child."

"I am now healthy and so is my baby and that is the only thing that matters. His feelings are the same as mine, but he wishes he could have been present during the desarean birth."

"It was not as frightening or uncomfortable as I

expected, but it was a disappointment in terms of having to 'go it alone'. I desperately wanted my partner to be with me! My husband was relieved my labor wasn't long."

"Ambivalence and disappointment plus relief. It was a very confusing moment for me; everything happened."

"I was physically relieved but emotionally tremendously disappointed. My husband said he felt concern for me and our baby. He was hopeful and trusting that cesarean delivery was best for the both of us."

Inability to Have Baby "Naturally"

"I feel only slightly cheated since we did not experience a natural birth."

"I am very angry at my body and possibly at my doctor, but at the time I trusted and agreed with him." Husband said, "I feel only slightly cheated since we did not experience a natural birth."

"Initially glad it was done; now feel robbed. If I had had her naturally, it would have been a completed experience. This experience is missing something. Not disappointed, glad they have such a technique."

"Could not believe baby was mine because I didn't feel him being born." ("Glad she didn't have to go through labor for very long.")

"I was quite upset about it because I had planned only for total natural childbirth. My husband was extremely

upset, very nervous about the baby and me going through surgery."

Ten women expressed relief, while twelve expressed their disappointment and fear. The negative thread that is expressed throughout their comments is their inability to be able to share their experience with their partner. This comment was expressed by 90% of the women interviewed. This correlates with the CBAQ and the lack of partners who were able to go into the delivery room at the time of the cesarean birth. The other 10% had their husbands with them during the cesarean birth and expressed very positive feelings about their experience.

"It was more than I expected; better than I expected. Once I got over the initial surprise and disappointment, I decided I wanted it to be a positive experience and it was. It was the best thing in my life!" (Husband was in delivery.)

Perceptions of Cesarean Birth at Interview

At the time of the interview, subjects were also asked how they felt now about their cesarean birth. Their responses were mixed for the most part. The trend of feelings experienced at the time of birth seemed to continue along the same path that they had expressed regarding their feelings at the time they realized a cesarean birth was imminent. The positive influences appeared to be the

ability to talk about their experience and work through their feelings. The following comments are representative of the feelings expressed at the time of the interview.

"I feel angry and resentful but I am trying to accept it as the correct outcome for me and my child to a typical labor. My husband is disappointed he couldn't be present. He is very supportive of my emotional problems caused by it."

"I am very angry at my body and possibly at my doctor."

"Initially glad it was done; now feel robbed."

"I am thrilled by my darling baby, but disappointed at not being able to do natural childbirth. Most people who have operations don't get a beautiful baby to show for it, so I feel lucky! My husband is happy we are both all right. He views my scar as a sort of badge of honor. He says it is beautiful."

"Nervous about doing it again; I think about it a lot; memories get better with time. My husband has been very helpful, very supportive, concerned and loving. He is very disappointed in not seeing the birth. Next time we are going to have cesarean classes and an epidural."

"My husband and I both feel very positive. We feel that education was very helpful. He doesn't think there is any difference."

"I feel just fine and just as glad; fear of the

unknown is the biggest drawback. My husband is also glad. He felt it was easier for me and the baby."

Anesthesia

Seventeen women in the study received regional anesthesia, while three received a general. The anesthesia of choice was the regional. Two general types of reactions were expressed. The women felt relief in no longer being able to feel the contractions, and they felt good about being able to see the birth of their child. The following quotes express this.

"I was given an epidural so I could rest. It felt so good; even better than sex at the time."

"The anesthetics were great. In a minute I could feel the numbing and tingling; couldn't feel any sensations. It was great."

"My first feeling was relief at the spinal and having pain of the contractions disappear and being totally alert for the birth."

"In operating room felt relaxed and comfortable. I had no fear of the spinal; surprised at how close drape was to my face."

"I remember it all. I will never forget."

The negatives expressed had to do with the effects of the anesthesia afterwards, especially the general anesthesia. Again, the disappointment of not being able to share

the experience was expressed.

"My husband having to leave the operating room bothered me the most."

"The worst part of the experience was waiting for the spinal to wear off so I could raise my head and move my lower body and hold my baby."

There were three women who were under general anesthesia for the delivery. Their total responses on the questionnaire averaged 81, which is 20 points lower than those who had regional anesthesia. They had limited contact with their infants and expressed regrets regarding this limited contact. The following comments express their feelings.

"I was put to sleep but was brought in and out of sleep a few times so I knew it was a boy and I heard the cry, but could not respond. I woke up with the same discomfort as I went to sleep with, so I was very upset when I came to. I saw the baby 2 hours later, and was very saddened to receive the baby from some nurse only to have him taken away 20 minutes later for some reason."

"I chose to be asleep. Being awake didn't appeal to me. First day groggy; first evening and next day terrible, but once I was moving around I felt better."

"I did not like to see the preparation before I was out; I especially didn't like the staff treating me like a piece of meat . . . I was surrounded by my family when I

woke up; I enjoyed the experience."

"Very strange sensation; the gas; amnesia effect. You see but you're not really there; mask over my face. I asked them to move it so my eyes weren't covered."

Response to Infant

Responses to the infant seemed to be varied. The woman's physical discomfort had a definite impact on how she felt. The following documentation expresses those feelings.

"Thought ran through my mind, 'It's not a boy!'. Never forgot what she first looked like -- tremendous! Heard her cries right away."

"One of the two things that bothered me most was not feeling well enough to handle the baby a lot at first."

"I felt very disappointed about not being able to feel the baby as he emerged."

"Had general anesthesia and I held her 2 hours after delivery. I don't remember her being taken away or going to my room. Holding her was like a fantasy. I don't remember her face."

"Remember feeling that I didn't want to have anything to do with her at that time. I know that sounds terrible."

"Touched her in delivery room and then they took her out to my husband so he could hold her. He held her the whole time we were in recovery, 2 1/2 hours. It was

wonderful."

The impact on mother and infant needs to be documented further. The CBAQ indicates that many women in this study did not feed or hold their infant until six hours or later. This could have an impact on their mothering ability and their adjustment to parenting (Kennel & Klaus 1979; Alfonso & Stichler 1980).

CHAPTER V

CONCLUSIONS

Summary

This descriptive study analyzed women's responses to their unexpected cesarean birth experiences. Data were collected with the Cesarean Birth Attitude Questionnaire (CBAQ) and open-ended interview schedule.

The CBAQ utilized four types of data analysis: comparison of response means for all questions, relative frequencies of high and low responses, Kendall Tau correlation matrix and t-testing by grouping respondents according to their length of labor and the time of interview.

The major findings of this study can be summarized as follows:

1. Support in labor is valuable to the laboring woman; the presence of a loved one appears to have a positive influence on the birth experiences.

The opportunity to have her partner participate in the cesarean birth experience appears to have been an important factor in a woman's ability to accept the C-birth more positively. The biggest disappointment expressed by the respondents was the lack of a support person in the delivery room.

2. Couples want to be active participants and share in the childbirth experience.

The study seems to indicate that a support person is an important factor in adjusting to a cesarean birth.

The partner's review of the labor experience had significant correlation with the mother's perceptions. This finding reinforces the suggestion that the opportunity to share the experience of birth together and understand how each feels about the unexpected cesarean birth experience may decrease some of the anxiety and frustration of not being together. Clarification and increased understanding of an unexpected experience appears to be helpful.

The couples in this study chose to participate in childbirth education. One can assume that their reason might be that they wanted to share a very important life event--the birth of their child. It isn't an everyday happening and some plan every aspect of it. The anticipation of the opportunity to share this very important day in their life is exciting; but when they are not able to do as they have planned, the realization can be devastating. Such a shared experience could have decreased the feelings expressed by this young mother:

> All in all, the birth itself and my postpartum experience were basically as good as can be expected from the medical standpoint of a surgical birth. The problem is that for me it was an emotionally devastating experience with long-term repercussions.

3. Hospital policy is unresponsive to the couple's desire to share the cesarean childbirth experience.

Another trend identified by the study is that even though all but one partner wanted the opportunity to share the experience of a cesarean birth, 86.4% were unable to do so because of hospital policy. This indicates a need for further dialogue with hospitals, physicians and nurses to increase the opportunity for birth to be a family experience, not merely a surgical hospital procedure.

4. The experience of an unexpected cesarean birth often leads to disappointment in the woman's inability to deliver as she had expected to do. The women who had not had the opportunity to labor were also those who expressed their frustration with not being able to deliver their baby vaginally. An interesting observation is that the average length of labor before the cesarean birth was 23.3 hours. This allowed the many women in this sample to experience labor and, more importantly, a cesarean birth was not a hasty decision for these women.

However, in comparing those experiencing 18 hours or less of labor with those experiencing more, the data indicated that the longer the woman was in labor, the more worried she became about her baby and the more painful she interpreted her labor to be.

6. An increased perception of pain increases fear and concern regarding the labor experience as well as decreasing

the respondent's positive perceptions of the experience.

The interview data of this study found similar concerns to those documented by Affonso & Stichler, 1980.

1. Fear and concern for the surgery and their baby.
2. Frustration at not being able to complete the experience of sharing the birth with their partner.
3. Anticipation of a vaginal delivery and disappointment at not being able to "feel the baby being born."
4. Relief at finally being rid of the pain and having the experience behind them.
5. Concern over their physical discomforts immediately postpartum and not being able to care for their infant as they had planned.
6. The inability to feed their infant as soon as possible. An interesting observation was that 17 out of the 22 women were breast feeding their baby successfully at the time of the interview. This is more than was expected. This fact should be explored in a future study.

Implications

The purpose of this study was to describe the experiences of women encountering an unexpected cesarean birth. Because of the limited sample size, broad

generalizations are not possible; however, this study does indicate some interesting trends to be confirmed with further research.

The data in this study suggest the various ways in which a woman copes with her cesarean birth experience. Many consumer groups advocate preparation for anticipated cesarean birth experiences. A major problem still exists for women who experience an unexpected cesarean birth.

Much is being done in the consumer movement to prepare the cesarean birth couple for a more positive second experience. Unfortunately, no one expects an unforeseen cesarean birth. There is a need to focus on the opportunity to participate and share this important life event for all pregnant women, especially those experiencing labor and delivery for the first time. The way in which a woman perceives her cesarean birth experience can have lifelong implications.

Hospital policies need to change to enhance a couple's birth experience. Most importantly, it is imperative to realize that the health of the woman experiencing an unexpected cesarean birth could be jeopardized by the lack of her partner's presence in the delivery room. Consumer input into medical and nursing policies has been minimal up to this point. Consumers should have a role in defining what their birth experience should entail (Affonso &

Stichler, 1980). The shared experience has been described as one of the most joyous moments in a person's life. The nursing and medical team should be sensitive to this and encourage this important possibility in a couple's birth experience. "The family that may experience a cesarean birth needs all the information and support from the nurses to effect change to meet their special needs" (Hedhal, 1980, p. 472).

Childbirth education seems to have a positive influence on a woman's perception of her cesarean birth experience. The interview portion of this study supports the assumption that childbirth education can positively influence a couple's perceptions of the cesarean birth experience and consequently supports the value of cesarean birth preparation for all women. Childbirth education enhances an individual's ability to cope with an unexpected cesarean birth.

The success that respondents reported in employing Lamaze techniques is an indicator that even though the end result was a cesarean birth, women felt there was value in the techniques they had learned in coping with the labor and delivery experience.

Childbirth educators need to realize, also, that because cesarean birth is a possibility for some of their clients, information on all aspects of childbirth should be incorporated into their childbirth classes. Cesarean birth

is one of the many alternatives in childbirth. Therefore, childbirth education has value in preparing couples for their birth experience, especially in case of an unexpected cesarean birth.

Education can decrease the gap between what a couple expects regarding the birth experience and what the reality becomes in labor. The opportunity to share the birth of their child is an important goal for couples who choose childbirth education. The inability to do as planned can be a major disappointment that may take some time to accept.

This study suggests that possible disappointment in cesarean birth outcome existed for all respondents who anticipated a vaginal delivery. However, it also suggests that the more positive women felt regarding the labor experience, the more likely they were to proceed to the next reality, the baby. Childbirth preparation appeared to enhance the respondents' awareness of the experience while providing the information which increased their ability to be active participants. Understanding why a cesarean birth may be necessary corresponds to an individual's ability to cope with an unexpected cesarean birth.

Some of the women interviewed expressed feelings of frustration over not being informed about decisions and often being treated as a "piece of meat" instead of laboring women. This indicates the need for women to have the opportunity to be informed consumers before their childbirth

experience, especially in the case of the woman who is alone, in a strange environment. Such women do not want to be looked upon as an "object," but rather as a woman anticipating the birth of her child.

The study also points to the need for the medical team to be aware of the couple's goals and concerns regarding their childbirth experience. The respondents suggest that their ability to cope with the labor and delivery experience is dependent upon their perceptions of the experience. The input they receive from their support persons and the obstetrical team can increase their positive perceptions of their cesarean birth experiences. This has implications for the nursing staff. They should be aware of the woman's concerns over her labor. It is important to determine what the patient actually fears and then provide information to her that can decrease the dangers she is perceiving (Affonso & Stichler, 1980, p. 470). Human contact helps her hold onto reality and realize that she is being cared for positively (Affonso & Stichler, 1980).

This study seems to indicate that both a support person and knowledge gained in childbirth education are important aspects in adjusting to a cesarean birth. The success felt by the couple who had childbirth education seemed to increase over time. This is a strong indicator for the continued support and referral by the nursing staff

to cesarean birth support groups. Women experiencing a cesarean birth need to have the opportunity to work through their feelings regarding their experience so they can cope better with the reality of their experience.

Recommendations for Future Studies

Large sample sizes studied longitudinally would be desirable in future studies. It would be advantageous to interview the couple a few days after delivery, in three to four months, and another follow-up at six months to validate the suggestion that perception of success with methods increases with time.

A study comparing couples having had childbirth education with those having had none is strongly suggested. The study could consist of four groups: vaginal delivery with childbirth education; vaginal group without childbirth education; cesarean birth with childbirth education; and cesarean birth without childbirth education. This would increase the validity and decrease confounding variables. This research is useful because it has suggested the various ways a woman copes with her cesarean birth experience. It sets the foundation for further research where there can be control over extraneous variables.

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APPENDIX A

PHYSICIAN RESEARCH INFORMATION

LOYOLA UNIVERSITY OF CHICAGO

THE MARCELLA NIEHOFF SCHOOL OF NURSING

*6525 North Sheridan Road, Chicago, Illinois 60626 * (312) 274-3000*

TITLE: A Descriptive Study of Childbirth Education & Its Influence on Women's Perception of Their Cesarean Birth Experience.

RESEARCHER: Linda Ungerleider, B.S.N., Graduate Student, Loyola University of Chicago, The Marcella Niehoff School of Nursing. Send or call referrals to 100 Williamsburg Road, Evanston, IL 60203; (312) 676-1871.

RESEARCH QUESTION: Is there a difference in the perceptions of the childbirth experience of primiparous women who have participated in a childbirth education course and experienced an unexpected cesarean birth from those primiparous women who did not participate in a childbirth education class previous to an unexpected cesarean birth?

OVERVIEW: Few studies have been written about the cesarean birth experience. Clinical observations have confirmed that little is known about cesarean birth couple's perceptions, fears or needs (Affonso & Stichler 1978; Hott 1980). The theoretical framework for this study is based on studies which point out that knowledge about perceived differences in the birth experience can be directed toward improving the preparation of parents for a cesarean birth if it should become necessary (Marut & Mercer 1979).

Over the past five years, there have been many changes in obstetrical practices. The most prevalent have been the advancement of medical technology, increased consumerism and the attitude that the childbirth experience is to be a

shared family affair. We can view these as positive advances. However, the increased knowledge of obstetrics through the use of fetal monitoring, ultrasound, amniocentisis and many biochemical tests have not only increased the quality of life but also have increased the cesarean section rate in the United States. The rising incidence of cesarean section is a source of concern for both health professionals and consumers. From 1968 to 1977, the cesarean birth rate in the United States increased from 5.0% to 12.8% with some institutions reporting rates up to 25% (Marieskind 1980).

The medical reasons for cesarean birth are valid but the couple who is anticipating a vaginal delivery can find this sudden change in their expectations to be very difficult to handle. For many, it is difficult to adjust to the experience. What are the feelings of the couple experiencing a cesarean birth? Can childbirth education make a positive difference in how a couple perceives the childbirth experience?

In summary, the proposed study is designed to investigate whether couples who have had at least a half hour of preparation in the context of a traditional childbirth education class will perceive a cesarean birth in a more positive manner than those who do not have any prior preparation.

PHYSICIAN RESPONSIBILITY: To communicate to their appropriate clients that the research exists and request their participation. Consent forms and research study information is provided in written form. Then refer their names to Linda Ungerleider, B.S.N., at which time she will contact them and set up a convenient time for an interview.

APPENDIX B

SUBJECTS' RESEARCH INFORMATION AND CONSENT FORM

LOYOLA UNIVERSITY OF CHICAGO

THE MARCELLA NIEHOFF SCHOOL OF NURSING

*6525 North Sheridan Road, Chicago, Illinois 60626 * (312) 274-3000*

Dear New Mother,

We are conducting a research project about how women who have experienced a cesarean birth perceive their birth experience.

It will take about 30 minutes of your time to fill out a questionnaire and discuss your cesarean birth experience with the researcher. The informed consent is enclosed.

Your participation in this project will be greatly appreciated and will contribute significantly to the success of this study.

Sincerely,

Linda Ungerleider, B.S.N.
Graduate Student

LOYOLA UNIVERSITY MEDICAL CENTER

MAYWOOD, ILLINOIS

THE MARCELLA NIEHOFF GRADUATE SCHOOL OF NURSING

INFORMED CONSENT

Participant's name:_____ Date:_____

Project Title: "A Descriptive Study of Childbirth Education and Its Influence on Women's Perception of Their Cesarean Birth Experience"

PARTICIPANT INFORMATION

This is a study of women's perceptions of their experiences of unexpected cesarean birth. It is concerned with how I feel about my overall labor and delivery experience. To complete this study I will be asked to fill out a 29-item questionnaire and discuss my experience with the researcher. It will be an in-person interview at my convenience within the first three months after the birth of my baby. The interview will last about 15 to 30 minutes. I know that the interviewer will ask me information about my background and my feelings and reactions to my cesarean birth experience.

I understand that biomedical or behavioral research such as that in which I have agreed to participate, by its nature, involves risk of injury. In the event of physical injury resulting from these research procedures, emergency medical treatment will be provided at no cost, in accordance with the policy of Loyola University Medical Center. No additional free medical treatment or compensation will be provided except as required by Illinois law.

In the event you believe that you have suffered any physical injury as the result of participation in the research program, please contact Dr. H. J. Blumenthal, Chairman, Institutional Review Board for Protection of Human Subjects at the Medical Center, telephone (312) 531-3384.

I agree to allow my name and medical records to be available to other authorized physicians and researchers for the purpose of evaluating the results of this study. I consent to the publication of any data which may result from these investigations for the purpose of advancing medical

knowledge, providing my name or any other identifying information (initials, social security number, etc.) is not used in conjunction with such publication.

All precautions to maintain confidentiality of medical records will be taken.

The results of this study have a potential benefit for women experiencing cesarean childbirth in the future.

CONSENT

I have fully explained to _____ the nature and purpose of the above-described procedure and the risks that are involved in its performance. I have answered and will answer all questions to the best of my ability.

_____
Signature: principal investigator

I have been fully informed of the above-described procedure with its possible benefits and risks. I give permission for my participation in this study. I know that Linda Ungerleider or her associates will be available to answer any questions I may have. If, at any time, I feel my questions have not been adequately answered, I may request to speak with a member of the Medical Center Institutional Review Board. I understand that I am free to withdraw this consent and discontinue participation in this project at any time without prejudice to my medical care. I have received a copy of this informed consent document.

_____
Signature: participant

_____
Signature: witness to signatures

APPENDIX C

CESAREAN BIRTH ATTITUDE QUESTIONNAIRE

Questionnaire adapted from 15-item questionnaire developed by Michael R. Samko, M.S. and Lawrence S. Schoenfeld, Ph.D., and reported in their study, "Hypnotic Susceptibility and the Lamaze Childbirth Experience," Am J Obstet and Gynecol, 121(5):632, 1975. Adaptation based on pilot study of mothers having a Cesarean birth by Joanne S. Marut, R.N., reported in, "The Special Needs of Cesarean Mothers," MCN The American Journal Maternal-Child Nursing, 3(4):202, 1978.

QUESTIONNAIRE MEASURING ATTITUDES ABOUT LABOR AND DELIVERY EXPERIENCE

Joanne Sullivan Marut, R.N., M.S.
and
Ramona T. Mercer, R.N., Ph.D.

Please circle the number on each scale that best describes the feeling state referred to in each question:

EXAMPLE:

How relaxed were you during labor?

Not at all		Moderately		Extremely
1	2	3	④	5

(This answer would indicate that you were very relaxed though not extremely relaxed.)

- -

1. How confident were you during labor?

Not at all		Moderately		Extremely
1	2	3	4	5

2. How confident were you during delivery?

Not at all		Moderately		Extremely
1	2	3	4	5

3. How relaxed were you during labor?

Not at all		Moderately		Extremely
1	2	3	4	5

4. How relaxed were you during delivery?

Not at all		Moderately		Extremely
1	2	3	4	5

5. How successful were you in using the breathing or relaxation methods to help with contractions?

Not at all		Moderately		Extremely
1	2	3	4	5

6. How pleasant or satisfying was the feeling state you experienced during delivery?

Not at all		Moderately		Extremely
1	2	3	4	5

7. How well in control were you during labor?

Not at all		Moderately		Extremely
1	2	3	4	5

8. How well in control were you during delivery?

Not at all		Moderately		Extremely
1	2	3	4	5

9. To what extent did your experience of having a baby go along with the expectation you had before labor began?

Not at all		Moderately		Extremely
1	2	3	4	5

10. To what extent do you consider yourself to have been a useful and cooperative member of the obstetric team?

Not at all		Moderately		Extremely
1	2	3	4	5

11. How useful was your partner in helping you through your labor?

Not at all		Moderately		Extremely
1	2	3	4	5

12. How useful was your partner in helping you through delivery?

Not at all		Moderately		Extremely
1	2	3	4	5

13. To what degree were you aware of events during labor?

Not at all		Moderately		Extremely
1	2	3	4	5

14. To what degree were you aware of events during delivery?

Not at all		Moderately		Extremely
1	2	3	4	5

15. How unpleasant was the feeling state you experienced during delivery?

Not at all		Moderately		Extremely
1	2	3	4	5

16. Do you remember your labor as painful?

Not at all		Moderately		Extremely
1	2	3	4	5

17. Do you remember your delivery as painful?

Not at all		Moderately		Extremely
1	2	3	4	5

18. How scared were you during delivery?

Not at all		Moderately		Extremely
1	2	3	4	5

19. Did you worry about your baby's condition during labor?

Not at all		Moderately		Extremely
1	2	3	4	5

20. Did you worry about your baby's condition during delivery?

Not at all		Moderately		Extremely
1	2	3	4	5

21. Did the equipment used during labor bother you?

Not at all		Moderately		Extremely
1	2	3	4	5

22. Was the delivery experience realistic as opposed to dream-like?

Not at all		Moderately		Extremely
1	2	3	4	5

23. Did you have choices about interventions, i.e., examinations or treatments during labor?

Not at all		Moderately		Extremely
1	2	3	4	5

24. Did your partner (or other person) review your labor experience with you?

Not at all		Moderately		Extremely
1	2	3	4	5

25. Did you feel better after reviewing the labor and delivery experience?

Not at all		Moderately		Extremely
1	2	3	4	5

26. Were you pleased with how your delivery turned out?

Not at all		Moderately		Extremely
1	2	3	4	5

27. How soon after delivery did you touch your baby?

Immediately		2 hours		8 hours or longer
5	4	3	2	1

28. How soon after delivery did you hold your baby?

Immediately		2 hours		8 hours or longer
5	4	3	2	1

29. Were you able to enjoy holding your baby the first time?

Not at all		Moderately		Extremely
1	2	3	4	5

30. Was your partner with you during labor?

Not at all		Often		Always
1	2	3	4	5

31. Was your partner with you during delivery?

Not at all		Often		Always
1	2	3	4	5

32. If your partner did not participate in the delivery, was the reason (please check)

Hospital policy _____ Partner preference _____ Your preference _____

Emergency situation _____

33. How long was your labor? _____ hours

0-6 hours	6-12 hours	12-20 hours	20-30 hours	30 or more
1	2	3	4	5

34. Did you participate in a childbirth education class? ____yes____no

If yes, did it include cesarean birth information? ____yes____no

APPENDIX D

BIOGRAPHICAL AND INTERVIEW FORMS

BIOGRAPHICAL INFORMATION ELICITED AT INTERVIEW

Age_____ Partner's Age_____

Marital status: Single_____ Married_____ Divorced_____ Years married_____

Education: (please check)

Elementary school_____ Master's degree_____

High school diploma_____ Ph.D._____

College degree_____

Ethnic background:

White_____ Oriental_____

Black_____ Other_____

Hispanic_____

Occupation/profession_____ Partner's_____

Annual income: (please check)

Under $10,000_____ $20-30,000_____

$10-20,000_____ Over $30,000_____

Complications to pregnancy, if any: Please specify_____

_____

_____

_____

Reason for cesarean birth: (Please specify)_____

_____

_____

_____

_____

At what time during your labor was a cesarean birth decided?_____

How did you feel at that moment?_____

_____

_____

Your partner's feelings at that time were?_____

_____

_____

What was the most helpful input to you at that time?_____

_____

Child's birthdate:_____ Sex_____ Birth Weight_____

Apgar score_____ Expected due date_____

Breast feeding_____ Bottle feeding_____

When did you first feed your infant?_____

How do you feel about your cesarean birth?_____

_____

_____

Partner's feelings about your cesarean birth:_____

_____

_____

Did he feel he knew what was happening to you?_____

When did your partner see your baby?_____

Did he hold the baby immediately after birth?_____

Where was your partner during the cesarean birth?_____

_____

Describe your cesarean birth experience in your own words:

Thank you very much for your cooperation.

Date of Delivery:_____ Date of Interview:_____

APPENDIX E

KENDALL TAU CORRELATION MATRIX

KENDALL CORRELATION COEFFICIENTS MATRIX: VARIABLE PAIRS

CBAQ Question Numbers	1	2	3	4	5	6	7	8	9	10
1		0.4211	0.6988*	0.1641	0.4358	0.1802	0.1525	0.4880	0.4830	0.2885
2	0.4211		0.2561	0.8114	-0.2418	0.4075	-0.2058	0.5493	0.6327	0.0720
3	0.6988*	0.2561		0.0347	0.4532	-0.0284	0.2731	0.4383	0.4540	0.2216
4	0.1641	0.8114*	0.0347		-0.2111	0.4370	-0.2195	0.5364	0.5977	0.1786
5	0.4358	-0.2418	0.4532	-0.2111		-0.1913	0.5589	0.1195	0.1442	0.3560
6	0.1802	0.4075	-0.0284	0.4370	-0.1913		-0.3921	0.2598	0.3894	0.0903
7	0.1525	-0.2058	0.2731	-0.2195	0.5589	-0.3921		-0.0472	0.0453	0.3238
8	0.4880	0.5493	0.4383	0.5364	0.1195	0.2598	-0.0472		0.4454	0.3150
9	0.4830	0.6327*	0.4540	0.5977	0.1442	0.3894	0.0453	0.4454		0.2920
10	0.2885	0.0720	0.2216	0.1786	0.3560	0.0903	0.3238	0.3150	0.2920	

*.63 significant at .001

.31 significant at .05

KENDALL CORRELATION COEFFICIENTS MATRIX: VARIABLE PAIRS

CBAQ Question Numbers	11	12	13	14	15	16	17	18	19	20
1	0.3093	-0.0917	0.1145	0.1528	-0.0583	-0.2112	-0.3798	-0.3140	-0.2494	-0.1866
2	0.4169	0.2002	0.1258	0.2754	-0.4857	0.0259	-0.6198	-0.3905	-0.3471	-0.1842
3	0.3322	-0.1428	0.0644	-0.0476	-0.1791	-0.2493	-0.3366	-0.1930	-0.3328	-0.3098
4	0.3953	0.5244	0.1907	0.5717	-0.3712	0.3167	-0.5817	-0.5464	-0.1045	-0.0813
5	0.0374	-0.0243	0.1404	0.0792	0.4438	-0.2412	0.2104	0.0437	-0.1338	-0.1278
6	0.1161	0.2359	0.1630	0.4785	-0.4134	0.0760	-0.4036	-0.3182	0.0	-0.0662
7	0.2572	0.0961	-0.0251	-0.2208	0.2595	-0.2254	0.0642	0.2517	-0.1486	-0.0755
8	0.3241	-0.0921	0.5993	0.4383	-0.2126	-0.0163	-0.3757	-0.4931	-0.4250	-0.2827
9	0.4540	0.3307	0.0369	0.3420	-0.2830	=0.0227	-0.5320	-0.2623	-0.3137	-0.2750
10	0.5360	0.1826	0.2702	0.2807	0.0989	0.1158	-0.2021	-0.0136	-0.0694	-0.0891

.31 significant at .05

KENDALL CORRELATION COEFFICIENTS MATRIX: VARIABLE PAIRS

CBAQ Question Numbers	21	22	23	24	25	26	27	28	29	30
1	-0.2445	-0.0187	-0.0427	0.0468	-0.0737	0.1326	0.2466	0.1239	0.0248	0.2651
2	-0.3415	0.0801	0.2670	-0.0256	0.1434	0.3565	0.4001	0.2122	-0.0602	0.0387
3	-0.3153	-0.2174	-0.1179	0.1421	-0.2009	0.2101	0.1915	0.2090	-0.1192	0.1220
4	-0.1255	0.3928	0.2934	0.1242	0.4186	0.2846	0.0633	0.2311	0.0437	0.0574
5	-0.0192	-0.0062	-0.2158	0.1349	-0.0284	0.1041	-0.1783	-0.2367	0.0559	0.2417
6	-0.1365	0.4118	0.0216	-0.2425	0.2033	0.2353	0.0	0.1886	0.1858	-0.0266
7	-0.0063	-0.3235	-0.1936	0.4150	0.0503	0.1932	-0.0565	-0.2791	0.0489	0.1900
8	-0.3190	0.2200	0.2335	0.0547	0.2163	0.1436	0.1155	0.4220	0.0492	-0.0907
9	-0.1595	0.0364	-0.0829	0.0509	0.1754	0.5014	0.2050	0.0969	-0.0958	0.1048
10	0.0822	0.1272	-0.3641	0.5696	-0.0124	0.0372	0.1976	0.2229	0.1922	0.1917

.31 significant at .05

KENDALL CORRELATION COEFFICIENTS MATRIX: VARIABLE PAIRS

CBAQ Question Numbers	31	33
1	0.0402	0.0207
2	0.3554	0.1301
3	-0.1220	0.1150
4	0.3375	0.3740
5	0.0	-0.1036
6	0.2665	-0.1673
7	0.2277	-0.0662
8	0.1012	0.1746
9	0.3299	0.0998
10	0.2453	0.0049

.31 significant at .05

KENDALL CORRELATION COEFFICIENTS MATRIX: VARIABLE PAIRS

CBAQ Question Numbers	1	2	3	4	5	6	7	8	9	10
11	0.3093	0.4169	0.3322	0.3953	0.0374	0.1161	0.2752	0.3241	0.4540	0.5360
12	-0.0917	0.2002	-0.1428	0.5244	-0.0243	0.2359	0.0951	-0.0921	0.3307	0.1826
13	0.1145	0.1258	0.0644	0.1907	0.1404	0.1630	-0.0251	0.5993	0.0369	0.2702
14	0.1528	0.2754	-0.0476	0.5717	0.0792	0.4785	-0.2208	0.4383	0.3420	0.2807
15	-0.0583	-0.4857	-0.1791	-0.3712	0.4438	-0.4134	0.2595	-0.2126	-0.2830	0.0989
16	-0.2112	0.0259	-0.2493	0.3167	-0.2412	0.0760	-0.2254	-0.0163	-0.0227	0.1158
17	-0.3798	-0.6198	-0.3366	-0.5817	0.2104	-4036	0.0642	-0.3757	-0.5320	-0.2021
18	-0.3140	-0.3905	-0.1930	-0.5464	0.0437	-0.3182	0.2517	-0.4931	-0.2623	-0.0136
19	-0.2494	-0.3471	-0.3228	-0.1045	-0.1338	0.0	-0.1486	-0.4250	-0.3137	-0.0694
20	-0.1866	-0.1842	-0.3098	-0.0813	-0.1278	-0.0662	=0.0755	-0.2827	-0.2750	-0.0891

.31 significant at .05

KENDALL CORRELATION COEFFICIENTS MATRIX: VARIABLE PAIRS

CBAQ Question Numbers	11	12	13	14	15	16	17	18	19	20
11		0.3046	-0.0159	0.0243	-0.1815	0.2205	-0.5340	-0.1837	-0.0581	-0.0627
12	0.3046		-0.1555	0.1538	-0.0474	0.1916	-0.0354	-0.2154	0.1916	-0.0706
13	-0.0159	-0.1555		0.4657	-0.0550	0.1380	-0.0776	-0.3602	-0.0124	0.0547
14	0.0243	0.1538	0.4657		0.0387	0.2222	-0.2038	-0.2066	0.0956	0.1347
15	-0.1815	-0.0474	-0.0550	0.0387		0.0318	0.5391	0.1891	-0.0311	0.0750
16	0.2205	0.1916	0.1380	0.2222	0.0318		-0.0431	-0.0741	0.1829	0.4115
17	-0.5340	-0.0354	-0.0776	-0.2038	0.5391	-0.0431		0.3371	0.0911	-0.0916
18	-0.1837	-0.2154	-0.3602	-0.2066	0.1891	-0.0741	0.3371		0.0181	0.0667
19	-0.0581	0.1916	-0.0124	0.0956	-0.0311	0.1829	0.0911	0.0181		0.4938
20	-0.0627	-0.0706	0.0547	0.1347	0.0750	0.4115	-0.0916	0.0667	0.4938	

.31 significant at .05

KENDALL CORRELATION COEFFICIENTS MATRIX: VARIABLE PAIRS

CBAQ Question Numbers	21	22	23	24	25	26	27	28	29	30
11	-0.0078	-0.0533	-0.1540	0.3591	0.1919	0.0867	0.4886	-0.3179	-0.2562	0.2265
12	-0.0777	0.0692	-0.1508	0.0718	0.1394	0.3374	0.0	-0.0655	-0.1072	0.2519
13	-0.0473	0.2652	0.1761	-0.0813	0.2729	-0.1295	0.0368	0.3911	0.1259	-0.2834
14	-0.0072	0.5912	0.0616	-0.0904	0.1700	0.0695	-0.1283	0.0585	0.2095	-0.2867
15	0.1831	0.0728	-0.1479	-0.0692	-0.0798	-0.2339	-0.3375	-0.3544	-0.0922	0.0762
16	0.2667	0.3747	0.0490	0.1268	0.1901	-0.3751	0.0791	0.3023	-0.0244	0.0356
17	-0.0077	0.0410	-0.2538	-0.1135	-0.3391	-0.1666	-0.4511	-0.1570	0.1263	0.0
18	-0.0067	-0.1412	-0.4840	0.2013	-0.3869	-0.0537	-0.1031	-0.2210	0.0639	-0.0616
19	0.4361	0.2396	-0.0060	-0.0513	0.1603	-0.1742	-0.1173	-0.0690	0.0966	-0.1761
20	0.3755	0.1688	0.2737	0.0438	0.1891	-0.4037	0.1118	-0.1069	0.2422	-0.2019

.31 significant at .05

KENDALL CORRELATION COEFFICIENTS MATRIX: VARIABLE PAIRS

CBAQ Question Numbers	31	33
11	0.2265	0.1813
12	0.5526	-0.0212
13	0.1396	-0.2209
14	0.1849	0.1428
15	-0.2755	0.1392
16	-0.1584	0.3869
17	-0.1315	-0.0942
18	-0.0308	0.0162
19	0.0	-0.2064
20	-0.0527	0.0553

.31 significant at .05

KENDALL CORRELATION COEFFICIENTS MATRIX: VARIABLE PAIRS

CBAQ Question Numbers	1	2	3	4	5	6	7	8	9	10
21	-0.2445	-0.3415	-0.3153	-0.1255	-0.0192	-0.1365	-0.0063	-0.3190	-0.1595	0.0822
22	-0.0187	0.0801	-0.2174	0.3928	-0.0062	0.4118	-0.3235	0.2200	0.0364	0.1272
23	-0.0427	0.2670	-0.1179	0.2934	-0.2158	0.0216	-0.1936	0.2335	-0.0829	-0.3641
24	0.0468	-0.0256	0.1421	0.1242	0.1349	-0.2425	0.4150	0.0547	0.0509	0.5696
25	-0.0737	0.1434	-0.2009	0.4186	-0.0284	0.2033	0.0503	0.2163	0.1754	-0.0124
26	0.1326	0.3565	0.2101	0.2846	0.1041	0.2353	0.1932	0.1436	0.5014	0.0372
27	0.2466	0.4001	0.1915	0.0633	-0.1783	0.0	-0.0565	0.1155	0.2050	0.1976
28	0.1239	0.2122	0.2090	0.2311	-0.2367	0.1886	-0.2791	0.4220	0.0969	0.2229
29	0.0248	-0.0602	-0.1192	0.0437	0.0559	0.1858	0.0489	0.0492	-0.0958	0.1922
30	0.2651	0.0387	0.1220	0.0574	0.2417	-0.0266	0.1900	-0.0907	0.1048	0.1917

.31 significant at .05

KENDALL CORRELATION COEFFICIENTS MATRIX: VARIABLE PAIRS

CBAQ Question Numbers	11	12	13	14	15	16	17	18	19	20
21	-0.0078	-0.0777	-0.0473	-0.0072	0.1831	0.2667	-0.0077	-0.0067	0.4361	0.3755
22	0.0533	0.0692	0.2652	0.5912	0.0728	0.3747	0.0410	-0.1412	0.2396	0.1688
23	-0.1540	-0.1508	0.1761	0.0616	-0.1479	0.0490	-0.2538	-0.4840	-0.0060	0.2737
24	0.3591	0.0718	-0.0813	-0.0904	-0.0692	0.1268	-0.1135	0.2013	-0.0513	0.0438
25	0.1919	0.1394	0.2729	0.1700	-0.0798	-0.1901	0.3391	0.3869	0.1603	0.1891
26	0.0867	0.3374	-0.1295	0.0695	-0.2339	-0.3751	-0.1666	-0.0537	-0.1742	-0.4037
27	0.4886	0.0	0.0368	-0.1283	-0.3375	0.0791	-0.4511	-0.1031	-0.1173	0.1118
28	0.3179	-0.0655	0.3911	0.0585	-0.3544	0.3023	-0.1570	-0.2210	-0.0690	-0.1069
29	-0.2562	-0.1072	0.1259	0.2095	-0.0922	-0.0244	0.1263	0.0639	0.0966	0.2422
30	0.2265	0.2519	-0.2834	-0.2867	0.0762	0.0356	0.0	-0.0616	-0.1761	-0.2019

.31 significant at .05

KENDALL CORRELATION COEFFICIENTS MATRIX: VARIABLE PAIRS

CBAQ Question Numbers	21	22	23	24	25	26	27	28	29	30
21		0.0204	0.0	0.1254	0.2789	-0.2324	-0.2331	-0.2013	0.1357	0.0883
22	0.0404		0.1529	-0.1880	0.271	-0.1009	-0.2170	0.1343	0.1651	-0.0245
23	0.0	0.1529		-0.2110	0.4380	-0.0236	0.0588	-0.1396	0.0884	-0.1583
24	0.1254	-0.1880	-0.2110		-0.1170	-0.1077	0.1803	0.1449	0.3349	0.2486
25	0.2789	0.2071	0.4380	-0.1170		0.1264	-0.0328	-0.0112	-0.1004	-0.0689
26	-0.2324	-0.1009	-0.0236	-0.1077	0.1264		-0.0500	-0.2686	0.0180	-0.0700
27	-0.2331	-0.2170	0.0588	0.1803	-0.0328	-0.0500		0.3524	-0.2090	0.0
28	-0.2013	0.1343	-0.1396	0.1449	-0.0112	-0.2686	0.3524		-0.0491	-0.0358
29	0.1357	0.1651	0.0884	0.3349	-0.1004	0.0180	-0.2090	-0.0491		-0.0502
30	0.0883	-0.0245	-0.1583	0.2486	-0.0689	-0.0700	0.0	-0.0358	-0.0502	

.31 significant at .05

KENDALL CORRELATION COEFFICIENTS MATRIX: VARIABLE PAIRS

CBAQ Question Numbers	31	33
21	-0.2422	0.0444
22	-0.0409	0.0805
23	-0.1422	0.0695
24	0.1974	0.2792
25	0.1244	-0.1575
26	0.3795	-0.1652
27	0.1839	-0.0448
28	0.0100	0.0563
29	0.1987	-0.0538
30	0.1220	0.0627

.31 significant at .05

KENDALL CORRELATION COEFFICIENTS MATRIX: VARIABLE PAIRS

CBAQ Question Numbers	1	2	3	4	5	6	7	8	9	10
31	0.0402	0.3554	-0.1220	0.3375	0.0	0.2665	0.-277	0.1012	0.3299	0.2453
33	0.0207	0.1301	0.1150	0.3740	-0.1036	-0.1673	-0.0662	0.1746	0.0998	0.0449

.31 significant at .05

KENDALL CORRELATION COEFFICIENTS MATRIX: VARIABLE PAIRS

CBAQ Question Numbers	11	12	13	14	15	16	17	18	19	20
31	0.2265	0.5526	0.1396	0.1849	-0.2755	-0.1584	-0.1315	-0.0308	0.0	-0.0527
33	0.1813	-0.0212	-0.2209	0.1428	0.1392	0.3869	-0.0942	0.0162	-0.2064	0.0553

.31 significant at .05

KENDALL CORRELATION COEFFICIENTS MATRIX: VARIABLE PAIRS

DBAQ Question Numbers	21	22	23	24	25	26	27	28	29	30
31	-0.2422	-0.0409	-0.1422	0.1974	0.1244	0.3795	0.1839	0.0100	0.1987	0.1220
33	0.0444	0.0805	0.0695	0.2792	-0.1575	-0.1652	-0.0448	0.0563	-0.0538	0.0627

.31 significant at .05

KENDALL CORRELATION COEFFICIENTS MATRIX: VARIABLE PAIRS

CBAQ Question Numbers	31	33
31		-0.3139
33	-0.3139	

.31 significant at .05

APPROVAL SHEET

The thesis submitted by Linda Ungerleider has been read and approved by the following committee:

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The final copies have been examined by the director of the thesis and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the thesis is now given final approval by the Committee with reference to content and form.

The thesis is therefore accepted in partial fulfillment of the requirements for the degree of Master of Science in Nursing.

April 18, 1982
Date

Dona J. Snyder, PhD
Director's Signature