

MANAGEMENT OF A SOCIAL EXPERIMENT ACROSS MULTIPLE SETTINGS  
AND INSTITUTIONS REGARDING CHILDBIRTH EDUCATION PROGRAMS AND  
TYPE OF BIRTH

by

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Dissertation submitted to the Faculty of the  
Virginia Polytechnic Institute and State University  
in partial fulfillment of the requirements for the degree of  
DOCTOR OF EDUCATION

in

Educational Research Administration

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May, 1986

Blacksburg, Virginia

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(ABSTRACT)

Experimentation in field settings addressing socially sensitive topics are generally avoided by researchers. This avoidance is based on the restrictive nature of the required controls and the perceived inability to implement the required designs. In this study, the researcher has documented the necessary steps to meet design requirements for the conduct of a quasi-experimental study in two field settings.

This quasi-experimental study addresses a case dealing with the attitudes of parents regarding their childbirth experiences. Programs for childbirth education traditionally emphasize the "natural" method of birth. Socially, cesarean births are currently being performed in 20 percent of the cases. Nursing education literature suggests that prepared childbirth education programs contribute to negative parental attitudes for those experiencing cesarean birth. In the case for this study, attitudes of parents

experiencing both vaginal and cesarean births and receiving three different levels of childbirth education were investigated.

Documentation of the required research controls for the case was achieved through the maintenance of a log of events. The three levels of childbirth education included two types of Lamaze training and the non-prepared. Two hundred and sixteen (216) parents in each of the settings were included in the study representing 54 vaginal and 54 cesarean births. The measurements included hospital records/and response to a modified Likert scale. Analysis of variance was used to test the research hypothesis.

Documentation of all research requirements for the study was successfully completed and case results obtained. Parents experiencing cesarean birth had more negative attitudes than those experiencing vaginal birth. In one of the two field settings, childbirth education was validated as contributing to more negative attitudes for cesarean birth, but was not replicated in the second setting. A significant ( $P < .05$ ) first order interaction between type of birth and receipt of childbirth education was found in both settings.

## DEDICATION

This study is dedicated to my husband, \_\_\_\_\_, my four children \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and my deceased grandparents, \_\_\_\_\_ . My husband and children have made numerous sacrifices and displayed many acts of love in order for me to obtain my formal educational goals. Their love, encouragement, support, and cooperation made the completion of this study possible. The love of my grandparents and their ability to give unselfishly of themselves provided me with my informal education, without which this study could not have been completed.

## ACKNOWLEDGMENTS

To express my gratitude and appreciation to all those contributors to this study whom I wish to acknowledge would take a chapter rather than a page or two. So many people have helped to make the completion of this study possible. Wonderful and special people have reached out with a warm touch, a caring smile, a cheerful word of encouragement, or a stern kick in the posterior when needed. I wish to acknowledge the following persons.

First, the participants of the study, the childbirth educators, the physicians and each member of their staffs, the members of the research committees, and the nursing staff at the participating hospitals. A tremendous debt of gratitude is owed to \_\_\_\_\_ who collected half of the posttest data. Another key person was \_\_\_\_\_ who typed, retyped, and retyped, and never lost her natural pleasant attitude. A special acknowledgment to

\_\_\_\_\_ for her skillful editing of this document.

I am especially appreciative to Dr. Jimmie Fortune, Chairman, who not only contributed his time and efforts but constantly provided support and encouragement. Dr. Fortune is one of the most genuine and kind persons it has been my pleasure to know. It was Dr. Fortune's knowledge, role

modeling, and sincere love of research that spurred my interest in the discipline.

A special note of thanks to Dr. Mary Tilbury who offered help and guidance especially in bettering my writing abilities. Dr. Ken Underwood not only provided assistance but kept the necessary ingredient I kept forgetting -- reality! Dr. Glen Earthman offered support and raised questions that led to improvement in the study. My appreciation to Dr. Robert Richards who interviewed me for admission into the program and who has been a source of continuous support. Dr. Karl Hereford who gave of his time, offered advice, and contributed an expertise to the study that introduced germane issues I had overlooked.

I have made some very dear friends during this academic pursuit. A person who has become my big brother and whom I love very much, who worked, laughed, played, and cried with me as we went down some one-ways together. Two other special people are and with whom I attended some classes, and even missed a few. are very special friends. and I took our first undergraduate statistics course together and got us through it.

, hang on to your quarters.

A sincere and special thank you to my family. Without their love and support, this study would not have been possible. My gratitude to my four children, ,



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CHAPTER I  
DEVELOPMENT OF THE PROBLEM

Introduction

In the past 20 years, numerous methodological approaches have been partially utilized in the social research arena. However, social scientists "might profitably ask themselves why their particular discipline has not developed more rapidly, why theory-building has proved so difficult" (Roos and Caparaso, 1973). These authors feel "that one reason for comparatively slow progress has been a reliance upon weak research designs." Roos and Caparaso illustrate through examples in their book, Quasi-Experimental Approaches, Testing Theory and Evaluating Policy, stronger designs than those which fall under the rubric of quasi-experimentation.

Some research topics, such as this study, demand a field setting. Quasi-experimentation, therefore, becomes appropriate because it relies on situations that occur naturally, implying that quasi-experiments have a functional, rather than a procedural basis.

In social research, the researcher is interested in situations outside the laboratory and in the "real world." In non-laboratory research, the emphasis is on "natural" or

socially given observations. Social experiments are concerned with situations in which the independent variables cannot be totally manipulated or in which the participants have been self-selected into groups (not randomly assigned) and thus, quasi-experimentation. The primary concern in such a setting is the amount of control, not whether there is control or not. No environment provides absolute control (Isaac and Michael, 1979).

Even quasi-experimental studies vary in the degree of control possible and in the reaction of society to their conduct. Research in many socially relevant topics involves controversial issues, several levels of control by societal institutions, and/or immediate concerns for the well-being of those they involve. Research in medical education is one area possessing all of these constraints.

In this context, education for childbirth offers a way of helping parents maintain a perception of being in control during a critical period in their lives, and it has significantly contributed to their satisfaction (Borenstein and Willmuth, 1978). Women, today, exert more influence over their lives than ever before. It has been argued that mothers who believe that they are in control of their own labor and delivery will benefit most from preparation for childbirth (Willmuth, 1975).

Couples learn through preparation classes what to expect during childbirth (Marut, 1978). Marut concluded

that this kind of preparation is important because, in our society, one's ability to do what is necessary to achieve one's goals is valued. Rubin (1968) concurred by stating, "to lose control of one's bodily functions and, because of this, to fail to achieve an expected goal may be perceived as a loss of self."

However, there are some aspects of labor and delivery over which the parturient has little control. When such aspects occur, a cesarean birth may be indicated (Marut, 1978).

Cesarean births account for approximately 15 percent of all births in the United States, with the rate of surgical delivery reaching 25 percent in some referral centers. It has been predicted that these numbers will climb higher as the use of technological advances indicate more accurately which mothers are at risk and can safely be delivered surgically (Marieskind, 1979).

In an article in the Journal of the American Medical Association, and quoted in a prominent Virginia newspaper, Dr. Norbert Gleicher, head of Chicago's Mount Sinai Medical Center and faculty member of Rush Medical College, contended that contributing significantly to the proliferation of cesarean births is "an increasing ingrained behavior pattern in which doctors perform cesareans at the first hint of complications to avert subsequent malpractice litigation. Dr. Gleicher was further quoted as stating that "malpractice

insurance rates for obstetricians and gynecologists are among the highest in the country" (The Virginian Pilot and the Ledger Star, Friday, December 21, 1984).

An unplanned cesarean birth after a long, arduous labor has often been reported by parents as being a shattering experience. Choices and participation in their childbirth experience were usually eliminated (Affonso and Stickler, 1978). Data has shown an increasing rate of cesarean births occurring with some negative reactions. These reactions have included fear, feelings of failure, loss of control, anger, hostility, and personality changes, with major effects being a lack of or faulty parental infant bonding (Klaus and Kennel, 1976).

Schlosser (1978) reported that if a mother has prior knowledge that she is to undergo cesarean birth, her coping mechanism can be geared up to prepare for it. Unplanned cesareans, however, throw couples into chaos, weakening their coping mechanisms.

Rubin (1968) has further noted:

to lose or to be threatened with the loss of a complex coordinated and controlled functional activity which has been achieved and integrated in the personal system is to lose or be threatened with the loss of self.

Coupled with the increase in technological advances is an increasing awareness of how important participation in the birth experience is to the woman and to her family.



Consumers are shopping for a childbirth experience that meets their expectations in relation to control and participation (Cranley, Hedahl, and Pegg, 1983).

To study the current effects of childbirth education in a manner which would permit causal inference requires the planning, installation, and conduct of a quasi-experimental design. The researcher was faced with obtaining the cooperation of the contributing societal institutions, the inability to control time in the process, and the needs to reduce reactivity in the instrumentation of the study.

#### Statement of the Problem

The primary concern of this study was to document the research management requirements necessary to conduct a quasi-experimental design on a socially volatile issue. Involved were five major points of reference for documentation.

- I. Document implementation of clearance
  - A. Permission to collect data
    1. Human subjects review
    2. Participant consent signed
    3. Proper hospital protocol
  - B. Acquire physician participation
  - C. Release of data from institutions

- II. Document implementation of treatment
  - A. Administration of terms and conditions
  - B. Uniformity of techniques
    - 1. Validate self reports
    - 2. Time
    - 3. Location
- III. Document implementation of methods
  - A. Uniformity of settings
  - B. Uniformity of data collection
- IV. Document factors of reactivity in testing
- V. Document techniques to control data
  - A. Control for factors that may interact
    - 1. Pretest effects
    - 2. Staff/physician relations
  - B. Explanation of pretest and posttest non-eligibility

Documentation of these five points are reported in Chapter IV of this dissertation.

The current literature on parents' attitudes toward cesarean birth suggest that many parents have conflicting emotions following the birth of their babies and felt they did not receive adequate cesarean education. Donovan (1979) wrote on the lack of education for cesarean parents and the need for planning for a family-centered cesarean birth. More recent studies continue to suggest that some women who experience cesarean birth report feelings of disappointment,

failure, and guilt (Hedahl 1980, Lipson 1980, Marut and Mercer 1983).

Donovan and Allen (1979) suggest that cesarean mothers, especially those who attend traditional childbirth courses or set unrealistic goals for their performance in labor and delivery, frequently refer to themselves as "failures" or "natural childbirth flunkies." This becomes of concern to health administrators anxious over the increasing cesarean birth rate and the anticipation that it will increase even more.

The results of the National Hospital Discharge Survey Data from the National Center for Health Statistics were published by Placek (1983) in the American Journal of Public Health. The results reveal that "over one out of every five hospital deliveries in the United States in 1983 were by cesarean birth." The report also provided data that the cesarean birth rate has increased consecutively for 14 years from 5.5 cesareans per 100 deliveries in 1979 to 20.3/100 in 1983. Further noted was that these figures "have been fairly uniform for women of all ages, for all marital statuses, all hospital sizes, all types of hospital ownership, and within all regions.

This study seeks to investigate whether the current prepared childbirth programs are keeping up with these changes and are adequately preparing all parents for delivery, including the cesarean birth parents. As the

incidence of cesarean birth increases, so too must the professional concern for the psychological well being of the cesarean families.

Two research problems are addressed in this study. First, the work of the researcher in setting up the case for experimental analysis is described. Second, the problem of the case, the investigation of the effects of two programs of childbirth education on the attitudes of the parents experiencing two types of birth is presented.

#### Purposes of the Study

This study had two purposes:

1. To document the management of a quasi-experimental research study across two types of institutional settings in two locations. The institutional settings are hospitals and physicians' offices. The two locations are Tidewater, Virginia and Northern Virginia.

2. To compare the effects of childbirth preparation and the type of delivery on parents' attitudes towards their labor and delivery experience. The childbirth preparation had three levels, American Society for Psychoprophylaxis in Obstetrics (A.S.P.O.), Childbirth Education Association (C.E.A.), and non-prepared. The types of delivery looked at were vaginal and cesarean birth.

To satisfy purpose one, documentation of the management

of a quasi-experimental design in a social setting was provided by keeping and recording a research management log.

The following research questions were posited to address purpose two:

1. Do parents who experience cesarean birth have less positive attitudes toward the birth experience than those who experience a vaginal birth?
2. Are there differences in parents' attitudes across different types of childbirth preparation classes?
3. Do parents among the non-prepared group who experience a cesarean birth have less positive attitudes of the birth experience than those parents prepared by either of the two childbirth preparation programs? Does type of delivery interact with these differences?

#### Significance of the Study

Cook and Campbell (1979) offer two major reasons why researchers are using experimental design in theoretical and practical research in field settings. The first is "an increasing unwillingness to conduct experimental tests in controlled (usually laboratory) settings that are irrelevant for both theory and practice". The second rises out of a dissatisfaction with non-experimental alternatives for inferring causation.

The non-equivalent control group quasi-experimental design was selected for this study because of its applicability in the investigation of the effects of a variable on a group that has assembled naturally, i.e., was not brought together by the researcher for his/her own purposes (Caparaso, 1973).

In the domain of social science, theory-development and policy research are determined from situations where the independent variable is "socially given" (not under experimental control). Quasi-experimentation has specific application in such situations (Roos, 1979).

This researcher feels there typically are two reasons why experimental design studies have not found their way into the mainstream of social research. First, in research training there is a lack of attention directed toward techniques for implementing an experimental study in a field setting. Such germane issues as the public relations involved, the kinds of obstacles to expect and suggestions for managing them are absent from curricula. Second, experimental study is easier to conduct in a laboratory setting and then to apply to a real situation. The weakness is that because the study was not carried out in the field setting, only correlations can be drawn to infer results.

The major deficiency in applied laboratory study, therefore, is that documentation has not been provided on the conduct of an experimental design in the "real world"

that provides insight into the factors of reactivity in experimental study. It is the intent and significance of this study to provide that documentation.

The research management function served by this study was to provide documentation concerning what is required to investigate a social program across multiple settings on a restricted budget. The relevance of research management to this study is to identify problems and solutions in conducting a social experiment, as identified in purpose one. This included describing the methods of identifying, negotiating, implementing, and complying with each institutional setting regarding their policy and protocol to conduct a research study. This included legal requirements as well as human subject requirements. This documentation is included in Chapter IV with a description of how the researcher managed a social experiment across multiple settings and institutions.

In exploring purpose two of this study, consideration was given to the long-held assumption of educators that increased knowledge and improved attitudes affect a positive behavior change in the learner. The development and practice of desirable behaviors can be manifested in all forms of human interaction. The manner in which infants are brought into the world and their initial contact with their parents strongly influences the child's social and intellectual development (Marut, 1978).

However, what occurs when parents' plans for a "natural" vaginal delivery are unexpectedly altered, and the child is delivered by cesarean birth? What effect does this have on maternal-infant bonding and on the new mother herself, whose expectations are not met and who perceives her preparation to meet those expectations to have been a waste of time and effort? Would the effects be different if the course content offered during the childbirth preparation programs included preparation for possible cesarean birth?

In 1965, 4.5 out of every 100 deliveries were performed by cesarean birth; this rate rose steadily over a decade and a half to 17.9 per 100 deliveries in 1982 (American Journal of Public Health). The basis behind prepared childbirth programs is for parents to have prior knowledge of what they can expect and how to prepare for it. Emergency cesarean birth, however, seems to weaken parents' coping ability and subjects them to a grieving process (Schlosser, 1978).

Many factors interact to produce unfavorable reactions to cesarean birth. In addition to the normal physiological adjustment to pregnancy and to parenthood, there are the physical stresses of a major surgical procedure. Numerous unfamiliar and intrusive procedures occur rapidly, often without any explanation, and certainly without preparation. Marut and Mercer (1979) describe these types of procedures and the use of anesthesia as producing a gap in the parents' recollection of the labor and delivery, leading to a sense



of unreality. This seems to indicate a need for a shift in emphasis to encompass an examination of the dimensions of the maternal adaptive reactions to such procedures.

There can be little doubt that prepared childbirth programs have been well received. At the same time, controlled evaluations of the reactions of preparation on such variables as length of labor, analgesia-anesthesia required, and certainly the unplanned cesarean birth, have not demonstrated conclusively the benefits of training.

Numerous studies have spoken of the relationship of prepared childbirth programs and the direct benefit of maintaining control. Willmuth (1975) stated "that education for childbirth offers a way of helping women maintain a perception of being in control during a critical period in their lives and, in this way, significantly contributes to satisfaction."

Marut and Mercer, studying primiparous women having a vaginal or emergency cesarean birth, concluded that "the surgical method of delivery was the primary influence on the woman's perception of her labor and delivery experiences (1979)." They reported trends in their data which suggested that the presence of the father at delivery and a sense of being in control enhanced the woman's perception which, in turn, influenced her feelings toward her infant.

Marut and Mercer (1979) suggested that cesarean births may have a negative impact on the mother-infant

relationship. They noted that frequently the occurrence of an initial separation of the woman from her infant delayed the acquaintance process already complicated by the physical effects of the surgery and perhaps the use of anesthesia. This has been implicated in long-term negative effects on child development and an increased incidence of child abuse (Lynch, 1977). Marut and Mercer indicated that comments made by women about the emergency birth of their infants reflected hostility when compared with a vaginal birth group. The attachment process seems more difficult and often delayed for cesarean mothers.

Time in the delivery room, even for a cesarean birth, is short compared to the months of preparation for the first glimpse of the new parents' child. Parents eagerly await the first moment they will actually see their new infant and be able to hold and touch it. The period immediately following delivery has been identified by Marshall Klaus (1970) as critical in the mother-infant relationship. The mother begins identifying the child as hers and assimilating her new role into her self-esteem. Parents confirm themselves as mother and father and the child as theirs when they see, hear, and touch the baby.

For women who have a cesarean birth, contact with the infant is often delayed because the baby needs immediate care, the staff may be too busy with other duties, or the mother may be anesthetized. But this is as crucial a time

for this woman's future with mothering as it is for the woman who has delivered vaginally.

Using a time-lapse camera, Klaus and his associates established that there is a predictable pattern of behavior followed by mothers who have just given birth as they explore their new infant. This behavior seems to be altered when a mother and baby are separated. Klaus suggests that further affectional ties between mother and baby can be harmed when such a separation occurs. As yet, little is known about a mother's early feelings, her reactions to her cesarean birth, and their subsequent impact on her mothering ability. But Helfer (1975) reports that a study of abused children showed that a proportionately high number were born prematurely or by cesarean birth.

Pregnancy and childbirth are experiences with a highly complicated network of social relationships. The expectant mother must cope not only with changes in her own body and self concept, but also with interaction between herself as a pregnant woman/prospective mother and her husband, her peer group, and the medical staff. The expectant father also must deal with many of the same variables.

So who is responsible for cesarean education? Are we to rely on prenatal classes to provide information? What is the best method of providing information to couples who do not anticipate having a cesarean birth? Would parents benefit from more or better cesarean education? Is helping

parents to deal with reactions from an unplanned cesarean birth to be part of the role of health professionals and health administrators?

Based on the reactions and results of this study, coupled with the possible implication of unplanned cesarean birth, this researcher feels there are strong indications to examine present prepared childbirth programs and assess the need for any updating, revision, or perhaps the design of a new childbirth program to better meet needs of prospective parents. Health, nursing, and hospital administrators as well as childbirth and nurse educators should collaborate in policy development to lessen some negative effects on parents who experience an unplanned cesarean birth.

Administrative decisions drawn from the conclusions of this study include: eliminate the program or programs; modify the program or programs; keep the present program or programs as they are; or add an additional program that would speak to any identified negative attitudes.

#### Delimitations of the Study

The subjects for this study were parent volunteers from the experimental group, having been participants of one of two different, prepared childbirth programs. The control group was the non-participants in any childbirth program. All of the female participants were primigravidas, and all

the participants were between the ages of 18 and 35. Each participant in the experimental group attended all the classes in their program. None of the participants had any post-operative complications, i.e., infection, determined by being afebrile with absence of signs and symptoms of infection, as well as documentation indicating no receipt of medication for infection. The participants had no previous exposure to formal courses in preparation for childbirth and none were or had been members of the medical and/or allied health professions. None of the participants delivered prematurely, defined as not delivering before 38 weeks of gestation. All babies were "normal and healthy," as measured against the gestational age chart and/or the documentation of physical examination results by the attending physician. The sample consisted only of paired births (mother and father present); no single births (mother only) were represented. The sample as chosen did not include multiple births.

#### Limitations

The nature of this study made it necessary to seek and gain the cooperation of expecting couples who were then considered volunteers. No control could be made for intensity of feeling or attitude in regard to having a "natural" delivery. Also, no control was made for the

length or difficulty of labor, or type and amount of medication received during labor. There was no control for the type of support and teaching each participant will receive during labor from staff, significant other person, or the support and relationship of the attending physician. A further limitation was the inability to control for the attitude, beliefs, and manner of presentation of the various instructors.

No controls were made for ethnicity, culture, religion or socio-economic status. Subjects were chosen in the natural order as they became available for the study.

The method of data collection for this study did preclude the possibility of uncontrolled environmental variables, such as noises and room temperature, that might have occurred during the questionnaire administration. However, no control could be made for differences in environmental conditions specific to each institution, which could affect parents' attitudes toward their birth experience.

### Assumptions

It was assumed that different attitudes exist and that the Marut and Mercer Questionnaire Measuring Attitudes About Labor and Delivery Experience, is a valid instrument of measurement. It was further assumed that the self reports

of the participants were truthful, i.e., that the subjects are primigravidas and had no other formal courses on prepared childbirth. Also assumed was the affect that different programs of childbirth preparation can have on parents who experience an unplanned cesarean or vaginal birth. These different programs could mean that the course content would differ in regard to when and to what extent preparation for cesarean birth would be introduced in the course (see Appendices F, G, H, and I), or in what is taught about a "normal" delivery. It was also assumed that because there was no monetary remuneration, the participants were involved because of an interest in the subject.

#### Definitions

The following terms are defined as used in this study:

1. Attitude -- An action or tendency representative of likes or dislikes; an indication of approval or disapproval. It is expressive of opinion and may elicit some overt response (Thurston, 1961).

2. A.S.P.O. -- American Society for Psychoprophylaxis in Obstetrics.

3. Bonding -- The process by which the human infant becomes attached to its mother.

4. Cesarean birth -- Incision through the abdominal and uterine walls for delivery of a fetus.

5. C.E.A. -- Childbirth Education Association  
Washington Metropolitan area. International Childbirth  
Education Association (I.C.E.A.) group membership #  
MG00262-30.

6. I.C.E.A. -- International Childbirth Education  
Association.

7. Lamaze prepared childbirth instruction -- Method by  
which a couple is prepared emotionally, intellectually,  
psychologically, and physically for childbirth. The Lamaze  
method is based upon Pavlov's principle of the conditioned  
response, the theory that the brain can be trained to accept  
and analyze a given stimulus and select a response to it  
(Ewy and Ewy, 1970).

8. Multigravida -- A woman who has been pregnant  
several times.

9. Obstetrical -- Involved with the management of  
pregnancy, labor, and the puerperium.

10. Parturient -- A woman in labor, giving birth.

11. P.C.A.T. -- Parenting and Childbirth Association of  
Tidewater. Tidewater Chapter. International Childbirth  
Education Association (I.C.E.A.) group membership # MG00078.

12. Primigravida -- A woman pregnant for the first time.

13. Primiparous -- Bearing or having borne but one  
child.



14. Puerperium -- The interval from the end of labor until the return of the maternal physiology to its nonpregnant state.

## CHAPTER II

### REVIEW OF THE LITERATURE

#### Introduction

In the design of the literature review, two strategies were involved. First, for the documentation of management requirements, the literature review was conducted to establish scope and sequence. However, for the literature review related to the case, a more conventional strategy was employed. For the case literature review, the researcher reviewed the current knowledge base as well as the current methods of study and used those results to form a foundation for the research questions used in the case.

A review of research management literature was directed toward identifying what is required to conduct a social experimental study. Chapter four of Cook and Campbell's book Quasi-Experimentation Design and Analysis Issues for Field Settings identified the five following concerns in administration of field experimental studies: implementation of clearances, implementation of treatment, implementation of methods, reactivity factors, and techniques to control data. Caparaso and Roos (1979) further suggest a need to interface the experimental study with societal institutions. This interface is based on current law.

### Identification of Documentation Requirements

The identification of documentation requirements were found in the laws and regulations of the Federal Government for research activities. Among these laws are acts that deal with confidentiality and privacy data, human subjects, institutional clearance, truth and testing, and civil rights [Privacy Act of 1974 (P.L. 93-579)]; [Protection of Human Subjects (P.L. 717 and P.L. 410)]; and [Civil Rights Act of 1957 (P.L. 85-315)]; [Civil Rights Act of 1960 (P.L. 86-449)]; [Civil Rights Act of 1964 (P.L. 88-352)]; [Civil Rights Act of 1965 (P.L. 89-110)]; [Civil Rights Act of 1968 (P.L. 90-284)]; and [Civil Rights Act of 1974 (P.L. 93-579)].

Experimental design is a time-dependent study. The researcher needs to plan and execute events such that treatment effects are not commingled with history. The method utilized for this documentation was PERT analysis (Federal Electric Corporation, 1963).

For the study case, a review of the literature revealed that considerable research has been done on the Lamaze method of childbirth and also on cesarean birth. However, literature on attitudes associated with different programs of prepared childbirth has only begun to appear and in scanty quantities and with no specific reference to the comparison of reactions associated with different prepared childbirth programs.

Organizationally, the literature for the case was divided into two sections. The first section concerns parents' reactions to their birthing experience. The second section addresses the Lamaze method of childbirth as it relates to areas of curricular emphasis, topics covered, and reasons parents give for attending childbirth preparation classes.

### Parents' Reactions to their Birthing Experience

Cox and Smith (1982) conducted a descriptive study to determine whether women who have cesarean births have lower self-esteem than do women who delivered vaginally. The population was 100 women with cesarean births and 100 women with vaginal deliveries. The Mann-Whitney U Test was used for the Rosenberg Self-Esteem Scales; chi-square analysis was used to compare demographic and other variables. A significantly lower level of self-esteem ( $P < .05$ ) was found in the group with cesarean births. These findings were congruent with the Marut and Mercer (1979) study "Comparison of Primiparous' Perceptions of Vaginal and Cesarean Births." One of their hypotheses tested was that "Primiparous women who experience emergency cesarean birth will have less positive perceptions of the birth experience than those who deliver vaginally." Twenty (20) primiparous women who had emergency cesareans and 30 women who were delivered vaginally were interviewed. The hypothesis was supported ( $t=2.73$ ;  $df=27.89$ ;  $P < .01$ ). To examine areas in which the

two groups differed, each questionnaire item was tested for significance.

The impact on Mother-Infant interaction is another reaction to unplanned cesarean birth appearing in the literature. Lynch (1977) and Helfer (1975) are both examples of this research. Lynch and Helfer both found negative reactions associated with this unexpected type of birth. Lynch compared 50 mothers who had abused their children with 50 control mothers. A higher portion of mothers abused children who had had abnormal labor and delivery and twice as many who had had a cesarean birth. Helfer reported that the rate of prematurity and cesarean birth was much higher among abused children than the general population.

"A Survey of Parents' Attitudes Toward Their Cesarean Births in Manitoba Hospitals" was reported by Erb, Hill and Houston (1983). A questionnaire was developed; a total of 316 questionnaires were distributed. Seventy-two (72) percent of the mothers (N=228) and 67 percent of the fathers (N=212) returned completed questionnaires. The questionnaire covered many specific postpartum feelings on the part of fathers and mothers about birth, baby, themselves, and their care. Although 65 percent of the couples surveyed had planned to be together for the birth, only nine percent actually remained together for the surgery. When these couples were asked their preference for a future birth, 72

percent of the mothers and 57 percent of the fathers stated that they would like the father to be present for the birth. Mothers reported that they most often turned to their partner, friends, or relatives for coping with their feelings rather than turning to the hospital staff or child educators. More advice on how to cope with their feelings would have been appreciated by 47 percent of the first-cesarean mothers. Twenty (20) percent of the mothers replied that, in general, they felt that their cesarean birth had been unsatisfying.

Some of the mothers felt guilty that they were unhappy and dissatisfied even though they had healthy babies, frustrated because they were unable to "mother." Mothers also expressed frustration when they were unable to see their babies immediately after birth. Some were disappointed because they did not see their babies being born or hear their first cries. As a result of their cesarean birth, some women reported being angry with themselves or feeling they had failed "as women" and had failed their partners by being unable to give birth in a "normal" way. Many felt frustrated when their partners were not allowed to be present for the birth. Many first-cesarean women expressed anger towards physicians and prenatal class instructors for not having prepared them for a cesarean birth. Some reported that they had received absolutely no instructions from the hospital staff or

physicians.

Fathers expressed relief that their partners and babies were healthy and that difficult labors were over. Those who were present for the birth expressed joy and happiness because they witnessed the birth of their child. Anger was expressed by fathers who were not allowed to remain with their partners during the birth; at the same time, many felt unprepared to be present in the operating room.

Fifty-nine (59) percent of the parents responding to the survey had attended prenatal classes, whereas the general proportion of the childbirth population in Manitoba attending prenatal classes is 30 percent.

Cain, Pederson, Zaslow, and Kramer (1984) published the results of their study of "Effects of the Father's Presence or Absence During a Cesarean Delivery." In a sample of 23 couples, those whose infants were delivered by cesarean birth with the father present described more positive feelings, greater involvement in decisions related to labor and delivery, and less delay in handling their baby than did couples in which the father was not present during the birth.

The interview data were analyzed with the Wilcoxon Rank Sum non-parametric test. Comparing parental reactions for the father-present and father-absent groups, the parents' descriptions of the birth experience were significantly different in a number of areas.

When a father was present at the birth, the mother reported positive feelings related to his presence, whereas mothers reported negative feelings about the father's absence.

The father's presence in the delivery room appears to have a positive effect on a woman's reactions to cesarean birth (Cronenwett and Newmark, 1974).

May and Sollid (1984) conducted a study on "Unanticipated Cesarean Birth from the Father's Perspective." In this study, interviews were conducted with 46 fathers whose wives had an uncomplicated pregnancy culminating in an unanticipated cesarean birth with a healthy neonate and no major complication for the mother and child. Of the 46 fathers, 52 percent attended the cesarean, and 48 percent did not, primarily because hospital policy prohibited it. Most negative reactions were not about the cesarean itself but about policies which excluded fathers from attendance arbitrarily, and staff behaviors that showed disregard for the father's need to feel included in the birth.

Transcribed interviews were analyzed using constant comparative analytic techniques for qualitative data, sometimes called "grounded theory methodology," a way of identifying recurrent themes in qualitative data. Of the 46 fathers, five described themselves as seriously disappointed or angry about the cesarean. Seventy (70) percent of the



fathers had at least one complaint about how they were treated by hospital staff. Seventeen (17) fathers expressed their resentment at inappropriate or seemingly arbitrary policies which limited their access to their wives before and during the birth, and to their wives and infants afterward.

Some determinants of Maternal Attachment were reported by Peterson and Mehl in their article published in The American Journal of Psychiatry. The population consisted of women who experienced natural childbirth without anesthesia in the hospital (N=21), women who experienced natural childbirth without anesthesia in their own homes (N=13), and women who delivered under anesthesia in the hospital (N=12).

Each group was analyzed separately using stepwise, forward-directed multiple regression analysis with an inclusion criterion of  $P < .10$  and an exclusion criterion of  $P > .12$ . The results for the entire sample (N=46) revealed that the most significant variable predicting the variance of maternal attachment was the amount of nocturnal-input separation. Birth experience followed in significance, with prenatal attitude being the least significant variable.

These authors concluded that preparation and commitment to a delivery style in which greater personal control and parent involvement was possible increased attachment even when the planned style of delivery was not possible. It

also concluded that prenatal preparation had a positive effect even if the type of labor planned was not fulfilled, e.g., medication administered against personal preference. This conclusion differs with some reports of theoretically negative effects of parental guilt feelings for not having a certain type of planned delivery.

Bradley (1983) contends that most of the published research looking at childbirth to date has been found in medical and nursing literature and not enough in psychological literature. Bradley published her response to this "weakness" in The Canadian Journal of Behavioral Science. In her study, she argues the "literature consensus" that a cesarean birth is associated with increased maternal risks, maternal psychological disturbance, and interruption of maternal/infant attachment.

The purpose of the Bradley study was to investigate relationships between type of birth (spontaneous vaginal, forceps, and cesarean) and (a) maternal psychological functioning, and (b) attitudes towards the infant. Attendance at prenatal classes was a major criterion for eligibility to be in the sample. Bradley felt it conceivable that a difficult vaginal birth, i.e., by forceps, might be as distressing as a cesarean birth; therefore, she made a distinction.

The psychological variables measured were: personality,

depression, anxiety, social adjustment, self-esteem, mood, and attitude. Measurements were taken during pregnancy and up to three months postpartum. The data were analyzed using either chi-square contingency relationships or analysis of variance. Any significant F ratio was followed by the Newman-Keuls procedure for multiple comparisons, with Alpha set at .05.

There was a significant relationship between perception of birth and birth experience  $\chi^2(2)=31.79, P<.001$ . The spontaneous vaginal delivery group indicated their birth experience was much easier. There was a significant difference in rating of the birth experience from the "worst" to the "most wonderful experience"  $F(2,219)=188.88, P<.001$ . Women who had a spontaneous delivery rated their delivery significantly more satisfying than women who had a forcep birth, with women who had a cesarean birth rated the lowest  $\bar{X}$  3.52, 2.82, and 2.26 respectively.

Maternal contact with the baby varied within the first 12 hours after birth, depending on the type of birth. There was a significant relationship between time of first holding the baby after birth and type of birth,  $\chi^2(16=74.77), P<.000.1$ . Ninety-four (94) percent of the spontaneous vaginally delivered group held their baby within the first hour, 85 percent of the forcep group, and 38 percent of the cesarean group. There was a significant difference in the

time between the first contact with their babies and the next contact,  $F(2,211)=12.75$ ,  $P<.0001$ . The cesarean group had a longer wait ( $\bar{X}=9.3$  hours), spontaneous vaginally delivered ( $\bar{X}=4.7$  hours) and the forceps delivered group ( $\bar{X}=5.6$  hours). There also was a significant difference in the amount of time the mothers and babies were together during the first 12 hours,  $F(2,211)=12.50$ ,  $P<.0001$ . The spontaneous vaginal group spent more time with their babies during the first 12 hours ( $\bar{X}=2.88$ ), the forceps group ( $\bar{X}=2.19$ ), and the cesarean birth group ( $\bar{X}=1.04$ ).

No relationship was demonstrated between type of birth and the development of maternal feelings towards the baby. There were no significant differences among the three groups with respect to feelings of confidence concerning the mothering role in the hospital or at one month postpartum. No differences were reported among the three groups regarding attitudes towards the baby while in the hospital, at one week, or one and three months, maximum F obtained,  $F(2,239)=1.76$ ,  $P>.2$ .

Self-esteem, social adjustment and attitude questionnaires indicated that there were no significant differences between the three groups, maximum F obtained,  $F(2,240)=2.26$ ,  $P>.1$ . There was no difference found in psychological functioning in the postpartum period, maximum F obtained,  $F(2,233)=1.68$ ,  $P>.2$ . In terms of the mood-subscales, the

only significant difference between the three groups related to feelings of pleasure in one month,  $F(2,233)=3.77$ ,  $P<.02$ . The cesarean group had less pleasure ( $\bar{X}=1.78$ ), the spontaneous vaginal group ( $\bar{X}=2.43$ ). There was no significant difference between the cesarean and forcep groups ( $\bar{X}=2.23$ ) or between the vaginal and forceps group.

The results of the Bradley study indicate that the method of birth was unrelated to maternal feelings toward the baby or to maternal psychological functioning in the postpartum period. The evidence suggests that a difficult birth is not necessarily followed by negative maternal feelings and attitudes towards the baby, or by less positive psychological functioning. The cesarean birth and forceps groups felt more stressed and less positive about their birth experience; however, there were no indications of psychological or maternal risk in the period. How the women in this study felt about their birth and hospital experience was unrelated to their feelings towards the baby.

Adelphi University, the Institute of Advanced Psychological Studies (1984) published the abstract of James Shed, Ph.D., dissertation. This study investigated the relationship between personal autonomy, state anxiety, and the perception of natural childbirth among first-time parents. The sample consisted of 61 couples who had taken natural childbirth classes and had delivered using the Lamaze

method. A Pearson Product moment correlation was performed for all variables.

Results supported neither the hypothesis of a positive correlation between personal autonomy and degree of positive perception of childbirth, nor did the data support the hypothesis of a negative correlation between personal autonomy and amount of state anxiety experienced during childbirth. Data did support the hypothesis of a negative correlation between the amount of experienced state anxiety and the degree of positive perception of childbirth.

Banks (1978) conducted a study "Maternal Reactions to Cesarean Section" investigating the psychological implications of cesarean sections. The focus was on how a cesarean section affects the mother. Primiparous women were interviewed to evaluate stress on the mother related to fear; the mother's need to face and acknowledge her "maternal failure to deliver via spontaneous vaginal birth"; the separation of mother and infant producing an adverse effect on the mother's self-confidence and maternal attitude; and the effect of the father's participation on the cesarean mother's self-confidence and maternal attitude.

The finding of the study suggested that subjects in that study did not experience their deliveries any differently, nor was their self-confidence affected. Banks considered the major finding of the study to be that fathers

attending cesarean births may be effecting a role reversal situation. Banks explains that the father rather than the mother being with the newborn during the immediate time after birth, which has been considered to be a major critical period for infant attachment, may have an adverse effect on the cesarean mother's confidence in her ability to perform mothering tasks.

The opportunity for husband-wife interaction may be one of the most significant determinants of paternal reactions to birth experience, as reported by La Rocca (1981). The father's reactions to childbirth are reportedly more positive if he becomes actively involved in the process. La Rocca assessed 110 primiparous fathers' reactions to birth. Prenatal training was associated with lower depression; fathers' attendance at the birth was associated with lower anxiety and depression; while earlier father-infant contact was associated with lower depression.

Eustace (1978) investigated a number of predispositional factors believed to influence the parents' level of participation in the childbirth process. The subjects were 120 parents between the ages of 18 and 35, all expecting their first child.

The prediction that parents who participate most in their child's birth would have greater satisfaction met with mixed results. There were significant differences between

female and male groups. The hypothesis that parents in the higher socio-economic classes would choose greater participation in their child's birth was supported for the males only.

Relatively easier labors were reported by females in the high participation group. Female subjects in the high participation groups better described natural birth and tended to have spouses who were enthusiastic about their choice of childbirth methods.

The purpose of Kjelson's (1983) study was to further the knowledge concerning the orientation that men are capable of being nurturant, active caregivers to their children from infancy. Indepth interviews were conducted with first-time fathers concerning their involvement during pregnancy, birth, and early childhood experiences of their children, and the sense of personal meaning they derived from those experiences.

The fathering descriptions presented in these interviews suggested that the experiences of pregnancy, birth, and early childhood is a potentially profound, emotional, and psychological involvement for men that is capable of altering their perspective of life and their sense of self. Results of the study further suggested that these fathering experiences initiate a "developmental process" for men. The participants also exhibited the



capacity to be effective providers of ongoing, nurturant care to their children.

Peterson, Mehl, and Leiderman (1979) studied the effects of some birth-related variables upon father attachment: 46 middle-income couples planning different childbirth methods; natural hospital delivery; home delivery; and hospital delivery with anesthesia were studied from the sixth month of pregnancy until six months after the delivery. The father's participation in the birth and his attitude toward it were found to be the most significant variables in predicting father attachment.

Multiple regression analysis of the data were obtained for the entire sample on all the variables. Emotional quality of the experience, labor length, the birth experience, the disappointment factor, and parity combined predicted 78.7 percent of the variance of father attachment.

The results for subgroups were as follows: the most significant predictor variables for the natural group were birth experience and parity (62 percent); for the anesthesia groups, 67 percent of the variance ( $P < .001$ ) was related to the disappointment factor; the most significant predictor variable for the home birth group was birth experience with 97 percent of the variance. Prenatal childbirth education and structuring of the birth environment were suggested to gain maximum participation and involvement of the fathers.

### Lamaze Method of Childbirth

Ewy and Ewy (1970) described the Lamaze method of preparing women emotionally, intellectually, psychologically, and physically for childbirth in their book, Preparation for Childbirth. The authors stated that the trained woman approaches delivery with a positive attitude, confidence and knowledge, and that she is able to maintain control and dignity throughout her labor.

Ewy explained that the Lamaze method is based upon Pavlov's principle of the conditioned response theory hypothesizing that the brain can be trained to accept and analyze a given stimulus and select a response to it.

Fitzpatrick, Reeder, and Mastorianni (1971) in their book, Maternity Nursing, list topics covered in the Lamaze course. In general, the teaching in the program consists of instruction in the anatomy and neuromuscular activity of the reproductive system, and the mechanism of labor. The mother is taught to replace responses of restlessness, fear, and the loss of control with more useful activity. Exercises to strengthen abdominal muscles and breathing techniques are taught in order to aid relaxation. In some programs, nutrition and general hygiene are included.

A 1962, a study of 407 primiparas interviewed before childbirth preparation classes by Davis and Morrone reported that 36.1 percent of women wanted to take the classes to

"help in delivery," 23.8 percent wanted to "learn more about themselves or the hospital," 10.3 percent wanted to "relieve tension," 17.9 percent wanted "instructions in baby care," 8.2 percent wanted "to learn exercises," and 3.7 percent gave "miscellaneous" reasons. Davis and Morrone did not define these categories. Did "help in delivery" mean reducing the discomfort, or reducing medication, or shortening labor, or all of these?

Motives for natural childbirth training were also examined in a study by Friedman (1971). Friedman interviewed 130 women before and after training. Fifty-four (54) of the women were primiparas. The primary motivation for taking the childbirth classes was a "desire to participate in labor and delivery" for 27.8 percent of the primiparas. The second most common motive was "dislike of the effects of anesthesia," given by 18.5 percent of the women. Other motives cited were "education," reduction of "generalized anxieties," "curiosity," "desire to remain awake to see the birth," "benefit of mother and baby," "fear of complications," "maternal disability," and "encouraged by husband."

MacLaughlin (1980) interviewed 20 first-time fathers. The primary reasons the fathers gave for wanting to be involved in the childbirth experience were "to share the birth" and "to enhance the couple's relationship."

McGraw and Abplanalp (1982) interviewed 77 primiparas

before they started Lamaze classes. These subjects were volunteers who agreed to participate in a study examining "attitudes toward pregnancy."

The women were asked how and why they had decided to take Lamaze classes. Their responses were recorded verbatim. The results showed the most frequently stated motive for participating in childbirth preparation classes was to gain information for themselves and their husbands. Many women indicated that because this was their first baby, they wanted to know what to expect.

The second most frequently given motive was to decrease the amount of medication in labor and delivery. Included in this category were explicit statements about wanting to deliver "naturally." The third most common reason concerned the desire of the wife and/or husband for him to be present and involved.

Beck (1980) studied a population of women attending a university hospital outpatient obstetrical clinic from the perspective of developing screening instruments for identifying pregnancy complications to aid in designing new and more effective preparatory treatment methods. Anxiety, participation in preparatory classes, and maternal attitudes sets were examined. Subjects requesting preparatory training were randomly assigned into two groups, one being standard Lamaze (N=37) and another being standard Lamaze

plus group systematic desensitization (N=30). Subjects not receiving training (N=35) were tested at the same intervals as the two Lamaze-prepared groups. A multiple regression method was used for statistical analysis. Class participation and maternal attitudes were found to be significantly predictive of pain during labor ( $F=6.68$ , 1 and 27df). Anxiety level on admission was predictive of labor length ( $F=3.44$ , 2 and 26df). Social class and maternal attitudes were predictive of patient manageability during labor ( $F=6.58$ , 1 and 27df).

The finding of this study regarding the pain ratings of Lamaze-prepared subjects is in conflict with a relatively large number of other studies. This suggests that class participation decreases the need for obstetrical intervention.

One hundred and twenty-eight (128) first-time expectant fathers attending Lamaze classes, their wives, and childbirth instructors were studied by Wapner, (1976). Sixty-three (63) items on a questionnaire were categorized according to feelings and attitudes concerning their family, fatherhood, the pregnancy, and the marital relationship. There also were separate categories related to involvement in physical reactions to pregnancy.

These fathers reported high emotional involvement in the pregnancy. Seventy-one (71) percent reported their

perceived need to protect and take care of their wives more during the pregnancy. The fathers reported positive involvement and indicated that the classes gave them a chance to participate.

Some advocates of natural childbirth (Tanzer and Block, 1972; Kitzinger, 1972) recognize that it is important for the father to feel a part of the new mother-father-infant triad. Wente and Crockenberg (1976) conducted a study with the purpose of determining whether Lamaze-trained fathers who participate and aid during the birth of their child have an easier, more positive adjustment to fatherhood than do fathers without Lamaze training. A series of t-tests for matched samples was run using Total Adjustment Scores, Average Adjustment Difficulty Scores, Overall Change in Routine Scores. The 13 individual items significantly correlated with total adjustment difficulty as dependent variables. There were no significant differences. Lamaze fathers did not report an easier, more positive adjustment to their babies in any area.

The purpose of the Schneider study (1975) was to investigate the ways in which preparation for childbirth classes also help prepare couples for their upcoming parenthood. The results indicated that while most couples felt the classes had been useful, many did not feel prepared either for the birth or for parenthood. Schneider concluded

from the study that many of the claims of proponents for childbirth preparation are overstated. Suggestions were made for ways of adding to and modifying the classes to better meet the needs of couples.

Expectant parents have many resources and options available to them, yet many report dissatisfaction with their birth experiences. "Parents' Attitudes, Expectations, and Satisfactions related to Maternity Care, and the Implications for Childbirth Education", Hall (1983) spoke to this issue. The participants in Hall's study attended childbirth education classes and planned to have physician-attended hospital births. Resulting from the study was a grid for mapping parents' expectations and preferences about significant maternity care issues as a teaching aid. The purpose of the study assumed that if childbirth educators better understood some of the personal attitudes that contribute to a parent's satisfaction or dissatisfaction they could better educate parents to choices that might enhance satisfaction.

Kodushin's (1981) dissertation topic was "The Transition to Parenthood and Lamaze Childbirth Preparation: Implications for Prevention". There were three major objectives of the Kodushin study: to establish a baseline of how couples respond to the transition to parenthood and determine the possible adverse effects if the demands are

not handled well; to evaluate whether Lamaze childbirth preparation prevented any of the potentially adverse effects; and to identify individual or couple characteristics which were predictive of how well the couples will cope with the transition to parenthood.

Two groups of couples who were having their first baby participated in the study. One group attended Lamaze classes and one did not.

Kodushin found that after childbirth, non-Lamaze couples experienced an increase in state anxiety and reported more difficulty adjusting, while the Lamaze couples did not experience an increase in state anxiety and reported less difficulty adjusting. The findings from that study support the claim that Lamaze training enhances the couple's chances to cope with the demands of the transition to parenthood.

Denys (1982) formulated and tested a hypothesis concerning instruction about cesarean birth given to Lamaze class participants. The findings rejected the null hypothesis at the 0.05 level of significance. A significant difference did exist between the amount and kind of instruction regarding cesarean birth and Lamaze class participant's tested knowledge about cesarean birth.



Denys' study supports the contention that Lamaze class participants can acquire knowledge when cesarean childbirth information is included in childbirth preparation classes.

CHAPTER III  
RESEARCH DESIGN AND METHODOLOGY FOR THE CASE

Introduction

Methodology for the research included use of two complementary research strategies. The first was a qualitative documentation of study planning and implementation. The second was the traditional quasi-experimental methodology used in the investigation of the case. This chapter describes both strategies.

Methods for Documentation

Documentation of the case study management included three strategies:

1. Maintenance of a chronological log of research activities;
2. PERT charting the case and searching for interfaces with society that required consent and reviews; and
3. Analysis of the study design to ascertain required monitoring activities. The research log involved making notation of activities for each day in diary fashion. These notes were taken from the researcher's appointment calendar, and focused on both planned and unplanned events.

The PERT chart served two purposes in the management of the study. The PERT chart enabled the researcher to control time by allowing an estimate of component duration and interfaces. In addition, the PERT chart displayed each interface with an institution or individual for which review and consent was required. For instance, the university in which this study was conducted required human subject review as well as prospectus examination. The hospitals and physicians involved required review and the affirming of a letter of cooperation. The individual participants signed consent forms and were pledged privacy. In regard to all clearances, the researcher gained and archived each clearance form prior to PERT chart development. A file of completed forms was maintained by the researcher.

Three key areas of monitoring were identified during the analysis of the plans for the case study. They were: (1) uniformity of within-treatment implementation; (2) establishment of subject eligibility; and (3) uniformity of testing conditions across pretest-posttest implementation. The course content within treatments was reviewed for uniformity. The specific course content used in the treatments are outlined in Appendices F, G, H, and I. Both instructors and students were queried about content after instruction. A checklist of subject eligibility requirements was developed and applied to each subject. The

test administrators were trained to assure uniformity.

### Subjects

The number of subjects participating in the study for each group are shown in Figure 1. For this study, the subjects studied were the population of parents meeting the delimitations required in the study design. Although the subjects studied were, in fact, a population they were treated as a sample of a hypothetical larger population possessing demographic characteristics similar to those found in the groups studied. In the conduct of the study, the population addressed was treated as a sample of this larger hypothetical population.

Subjects in the experimental group in Northern Virginia were parent volunteers, ages 18-35, who were participants of either A.S.P.O. or C.E.A.-preparation programs who experienced either an unplanned cesarean birth or a vaginal birth. Subjects in the control group were parent volunteers, ages 18-35, who were not participants of any childbirth preparation program and who experienced an unplanned cesarean birth or a vaginal birth.

Subjects in the experimental group in Tidewater, Virginia were parent volunteers, ages 18-35, who were participants of either A.S.P.O. or P.C.A.T.-preparation

NORTHERN VIRGINIA

	A.S.P.O.	C.E.A.	NON-PREP	TOTAL
♀	18 VAGINAL	18 VAGINAL	18 VAGINAL	54 VAGINAL BIRTHS
	18 CESAREAN	18 CESAREAN	18 CESAREAN	54 CESAREAN BIRTHS
♂	18 VAGINAL	18 VAGINAL	18 VAGINAL	54 VAGINAL BIRTHS
	18 CESAREAN	18 CESAREAN	18 CESAREAN	54 CESAREAN BIRTHS
TOTAL: 216 PARTICIPANTS				

TIDEWATER

	A.S.P.O.	P.C.A.T.	NON-PREP	TOTAL
♀	18 VAGINAL	18 VAGINAL	18 VAGINAL	54 VAGINAL BIRTHS
	18 CESAREAN	18 CESAREAN	18 CESAREAN	54 CESAREAN BIRTHS
♂	18 VAGINAL	18 VAGINAL	18 VAGINAL	54 VAGINAL BIRTHS
	18 CESAREAN	18 CESAREAN	18 CESAREAN	54 CESAREAN BIRTHS
TOTAL: 216 PARTICIPANTS				

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Figure 1. STUDY DESIGN

programs who experienced either an unplanned cesarean birth or a vaginal birth. Subjects in the control group in Tidewater, Virginia were parent volunteers, ages 18-35, who were not participants of any childbirth preparation program and who experienced an unplanned cesarean birth or a vaginal birth.

The sample population of parent volunteers represented each of the different childbirth preparation programs in Northern Virginia and Tidewater, Virginia. During attendance at the last class of their program, these volunteers filled out a data sheet (Appendix A), signed a consent-contractual agreement (Appendix B), completed a pretest, the Marut and Mercer Questionnaire Measuring Attitudes About Labor and Delivery Experience (Appendix C). The data sheet, consent-contractual agreement and the pretest each had a number attached that corresponded to a number in the participant's file, with the mother always designated as A and the father as B to assure independent testing. The pretest was administered by the instructor of the childbirth education classes. Delivery of the treatments were as follows: Tidewater, Virginia A.S.P.O., six instructors; P.C.A.T., four instructors, Northern Virginia A.S.P.O., four instructors; and C.E.A., five instructors.

From those subjects who filled out a data sheet, signed

a consent-contractual agreement, and completed the pretest, selection was to be made based on responses to the data sheet from participants of each of the childbirth preparation programs.

The different childbirth preparation programs represented were designated as Group NVT<sub>1</sub> (American Society for Psychoprophylaxis in Obstetrics, Washington, D.C. Chapter), Group NVT<sub>2</sub> (Childbirth Education Association, Washington Metropolitan area), Group TT<sub>1</sub> (American Society for Psychoprophylaxis in Obstetrics, Tidewater Chapter), and Group TT<sub>2</sub> (Parenting and Childbirth Association of Tidewater). As the qualified participants were delivered, an additional data sheet (Appendix D) and the posttest, the Marut and Mercer Questionnaire Measuring Attitudes About Labor and Delivery Experience, was administered (Appendix E) to 18 cesarean birth couples and 18 vaginally-delivered couples in the Northern Virginia and in the Tidewater area.

The sample population of parent volunteers representing the non-participants of any childbirth preparation program were recruited from physicians' offices both in the Northern Virginia and Tidewater areas. At approximately 36-38 weeks gestation, these participants filled out a data sheet (Appendix A), signed a consent-contractual agreement (Appendix B), and completed a pretest, the Marut and Mercer Questionnaire (Appendix C). The data sheet,

consent-contractual agreement, and the pretest each had a number attached corresponding to a number in the participant's file. The pretest was administered by the staff in the physician's office. In Tidewater, 16 physician group offices were used (11 of these provided participants for the control group). In Northern Virginia, 26 physician group offices (16 provided participants for the control group). In the cases in which obstetrical care was delivered by a collective of physicians operating from a single office, their services to a client were considered as a single physician. The pretest was administered to parent volunteers representing the non-participants of any childbirth preparation program at approximately 36-38 weeks gestation because this most nearly approximated the point in gestation at which the parent volunteers representing the different childbirth preparation programs were pretested.

From those subjects who filled out a data sheet, signed a consent-contractual agreement, and completed the pretest, selection was made based on the responses to the data sheet from respondents of each physician's office.

The participants representing the physicians' offices in Northern Virginia were designated as Group NVT<sub>3</sub>. The participants representing the physicians' offices in Tidewater, Virginia were designated as Group TT<sub>3</sub>. As the qualified participants delivered an additional data sheet



(Appendix D) and the posttest, the Marut and Mercer Questionnaire was administered (Appendix E) to 18 cesarean birth couples and to 18 vaginally-delivered couples in the Northern Virginia and Tidewater area.

The sample population consisted of 108 births: (54 vaginal births, 18 A.S.P.O., 18 C.E.A., 18 unprepared) and (54 cesarean births, 18 A.S.P.O., 18 C.E.A., 18 unprepared) 216 participants (mothers and fathers) in the Northern Virginia area, and 108 births: (54 vaginal births, 18 A.S.P.O., 18 P.C.A.T., 18 unprepared) and (54 cesarean births, 18 A.S.P.O., 18 P.C.A.T., 18 unprepared); and 216 participants (mothers and fathers) in the Tidewater area. The total sample for the study was 216 births, 432 participants.

No controls were made for ethnicity, culture, religion or socio-economic status. Scores on the Marut and Mercer Questionnaire were the dependent variable. The levels of prepared childbirth programs was one independent variable; the second independent variable was mother/father status; the third independent variable was type of birth. This is a quasi-experimental study using the pretest/posttest control group design.

### Instrumentation

The Marut and Mercer Questionnaire Measuring Attitudes About Labor and Delivery Experience was used for this study. The questionnaire consists of 29 items rated on a scale of one to five. Permission to use the questionnaire was obtained from its authors.

According to Cranley, Hedahl, and Pegg (1983) analysis of the content of the 29 items revealed that 11 items refer to labor only, 12 items to delivery only, two items to a combination of labor and delivery, and three items to the initial contact with the infant after birth. The subscales were judged not to be pertinent to the research questions of this study. Marut and Mercer (1979) reported a reliability coefficient (Cronbach's Alpha) of .83 for 50 women for the total scale. That compares with a reliability coefficient of .76 for 122 women for the total scale in the Cranley, Hedahl, and Pegg (1983) study. Mercer (1983) reports a Cronbach Alpha coefficient reliability of .87 for 294 women.

The researcher conducted a reliability study of the Marut and Mercer pretest to ascertain total score reliability for this sample. Alpha coefficients were found to be .73 across all subjects; .76 across female subjects; .69 across male subjects. The lack of reliability for the male sample may have been due to the lack of variance in

their responses.

The Marut and Mercer questionnaire is a Likert-type instrument with anchored response choices, some of which have directional neutral choices. To interpret the instrument with regard to positive or negative feelings concerning the birth experience, the anchored responses were summed relative to meaning. Scale values indicate that scores below 100 points represent negative holdings and scores above 100 points represent positive holdings.

In order to validate the questionnaire, it was field tested by four different groups: 1) five practicing obstetricians; 2) five practicing obstetrical nurses; 3) five expectant couples participating in a childbirth preparation program; and 4) 22 childbirth educators.

Each group was asked to comment on any unclear directions or wording and to evaluate the questionnaire in regard to:

1. Are the directions to the questionnaire clearly stated and comprehensible?
2. Are the questions clearly stated and comprehensible?
3. Are the questions relevant to current teaching taking place during childbirth preparation classes?
4. Are the questions stated in order to elicit an accurate and realistic response?

5. Are the questions stated in order to elicit realistic expectations?

6. Are the questions stated in order to prevent embarrassment to any individual respondent?

7. In general, are the questions designed to fulfill the five objectives (identified in the Field-Test Directions)?

Frequencies of responses by item were analyzed for possible lack of clarity or utility. None of the items on the scale required any major revision.

#### Collection of Data

Data were compiled by the administration of the Marut and Mercer Questionnaire Measuring Attitudes About Labor and Delivery Experience. The pretest was administered to the parent volunteers representing the different childbirth preparation programs during attendance at the last class of their program. The pretest was administered to the non-participants by the office staff of cooperating physicians.

After the research protocol had been approved by the Committee for the Protection of Human Subjects and by the institutional review boards of the cooperating hospitals, a convenient time for administering the posttest to each

participant was established. Each cesarean birth mother was beyond her third day after delivery and before the fifth day. The selection of this period of time after delivery for administration of the test was based on a study and report by Rubin (1961) that indicated certain phases occur during the restorative period of the puerperium. The first phase is referred to as the "Taking-in" phase lasting two or three days during which the mother is described as being passive and dependent. The second phase is described as a "Taking-hold" phase during which the new mother begins to strive for independence and autonomy. Another factor in selecting this time period to administer the posttest to the cesarean birth mothers was to allow for the major impact of physical discomfort related to the surgical procedure to have subsided.

The vaginal birth mothers were posttested at least 48 hours postpartum and before discharge from the hospital. The difference in posttest time was due to the difference in routine number of days required for hospital stay after each type of delivery. Each mother participant was still in the hospital and each father participant was given the posttest while visiting the mother.

In the Northern Virginia area, the researcher was notified of delivery by either the childbirth educator, the participant, or the physician's office staff. The

researcher was present to administer the posttest. At the time of posttest administration, the participants filled out a data sheet (Appendix D) and completed the posttest, the Marut and Mercer Questionnaire Measuring Attitudes About Labor and Delivery Experience (Appendix E).

In the Tidewater area, a nurse administrator trained as a test administrator was notified of delivery by either the childbirth educator, the participant, or by the physician's office staff. The nurse administrator was present to administer the posttest. At the time of posttest administration, the participants filled out a data sheet (Appendix D) and completed the posttest, the Marut and Mercer Questionnaire (Appendix E).

At the time of administering the posttest in both the Northern Virginia and Tidewater areas, directions were given and no questions were permitted after the test began in order to prevent the administrator from introducing a bias into the test administration. The participants were instructed to complete the questionnaire within 15 minutes.

All female participants were without post-operative complications, i.e., they were infection-free and denied being in "pain" at the time of the posttest administration. Absence of "pain" was based on the female participant not having received medication for pain within two hours of the time of the posttest administration. Attempts were made to

provide optimal environmental conditions. Whenever two or more participants were taking the test on the same day, they were instructed to limit transfer of information via conversation. All the data were collected within six months of the beginning of the study.

Confidentiality and the participants' rights were scrupulously protected. This was accomplished by destroying all completed tests, and all research reports are based on groups of people so that a particular individual cannot be identified. Total results of the study were shared with the participants when desired.

#### Treatment of Data

The first step in the data analysis was to classify, organize, edit, and present the results in a tabular form. A parametric procedure, three-way fixed effects analysis of covariance (ANCOVA) was used for statistical analysis. This method of testing was selected because it is constructed to compare two or more independent samples; it requires at least interval scale data; and it requires normal distribution and homogeneity of variance. The method tests the difference between two or more posttest means after correcting for origin level effects as shown by pretest. For each research question, null hypotheses were stated and

tested in the ANCOVA model (Phillips, 1978).

The hypotheses were tested by analyzing variance between and variance within results of treatment of each group represented as measured by the Marut and Mercer Questionnaire. The alpha level chosen for this study was  $P < .05$ . Any significant main effect was analyzed with pairwise mean comparison using the Newman-Keuls Multiple Comparison Test.



## CHAPTER IV

### FINDINGS

#### Introduction

The results address the two purposes of the research study:

1. To document management requirements for the conduct of experimentation in a social setting,
2. To conduct a case analysis of childbirth education on parental attitudes.

The documentation is reported in summarized form and the results of the case experimentation are presented as a traditional research report.

#### Documentation

##### I. Documentation of implementation of clearances.

The following clearances were required: human subjects review, prospectus examination, participating hospitals research protocols, participating physicians, sponsors of the treatments, childbirth educators, and participant consent. Forms were developed for physician and participant consent (Appendices L and B). Before utilizing these forms, they were subjected to colleagues for review and criticism. Human subjects review and prospectus examination forms

were provided by the university. These requirements were satisfied by a telephone conversation for the human subject review and by satisfactory passage of the prospectus examination. Three of the treatment sponsor consents were acquired verbally: (P.C.A.T., A.S.P.O. of Washington, D.C., and A.S.P.O. of Tidewater, Virginia). The remaining sponsor consent, for C.E.A. of Washington, was acquired by verbal and written request. The childbirth educators representing each of the treatments gave verbal consent to participate. The seven participating hospitals each provided the researcher with their research protocol forms. These were completed and followed by the researcher. Each of these differed in their requirements and committee(s) structure. All seven hospitals were cleared and the researcher was provided with a letter from each hospital containing notification of clearance. These letters are not provided in the appendices of this study, but are available for review as required.

The methods utilized to distribute required forms and to gain consents varied. Letters of introduction to physicians and attached consent forms (Appendix L) were either mailed or presented in person by the researcher during an office visit to explain the study. Participants signed their consent forms at the time they completed their treatment. The participating childbirth educators witnessed

the consent forms. The researcher hand-delivered all forms to each of the participating hospitals. Two of the seven hospitals required the researcher to present the planned study to their nursing research committee. That requirement was also met. A review of state regulations was done as a completeness check for all required permissions.

The frequency of contacts, agreements, and refusals obtained are presented in Tables 1, 2, and 3.

TABLE 1

## Contacts, Agreements, and Refusals of Hospitals

	Tidewater		Northern Virginia	
	#	%	#	%
Number contacted	5	100	3	100
Number agreeing	5	100	3	100
Number refused	0	0	0	0

In Tidewater, only 4 of the 5 consenting hospitals were used because of a variance in protocol required by one of these hospitals. The hospital that was rejected, protocol was inappropriate for the data collection plan.

TABLE 2

## Contacts, Agreements, and Refusals of Physicians

	Tidewater		Northern Virginia	
	#	%	#	%
Number contacted	16	100	62	100
Number agreeing	16	100	26	42
Number refused	0	0	36	58

In Northern Virginia reasons given by physicians for refusal to participate were the following: practice now limited to gynecology; one physician stated that none of his patients spoke English; one physician gave the cost of malpractice insurance as his reason for refusing; and, the remaining 29 chose not to sign and return the consent form.

From the 16 physicians in Tidewater, 11 contributed to acquiring the control group. From the 26 physicians in Northern Virginia, 16 contributed to acquiring the control group.

TABLE 3

## Contacts, Agreements, Eligible and Non-eligible Participants

	Tidewater		Northern Virginia	
	#	%	#	%
Number signed consent	326	100	342	100
Number not pretest eligible	65	20	68	20
Number not posttest eligible	45	14	58	17
Number eligible	216	66	216	64

An explanation of these numbers of non-eligible is provided following Table 5 which is a more detailed table.

## II. Documentation of implementation of treatments.

An outline of the curricula of both treatments from Tidewater and Northern Virginia appear in Appendices F, G, H, and I. The outlines provide documentation of the sameness of the treatments across the two locations.

The implementation of treatment was further documented by the researcher having conversations with various participating childbirth educators and participants at random selection. These conversations consisted of such questions to the childbirth educators as: "What topics did you present each week?;" "Did you ever deviate from that?;" "Are you satisfied you delivered the content as planned?" Examples of questions to the participants: "Do you feel the course content was helpful and current?;" "Do you feel the topics covered provided you with what you wanted and needed to know?;" "Do you feel the content was delivered as you were told it would be?"

All participants in Tidewater and Northern Virginia were pretested following the last class of their six-week course. The control groups in both Tidewater and Northern Virginia were pretested at their physician's office at 36-38 weeks gestation. This was done to approximate the same time in gestation that the treatment groups were pretested.

All participants were posttested within two to three weeks following delivery. The length of time that was required to complete data collection was five months in Tidewater and six months in Northern Virginia.

In order to fill the required cell size for this study numerous classes had to be used. These classes were offered over a six-month time period. This information is presented in Table 4.

TABLE 4

## Contributions of Subjects to Completing the Sample, by Class and Childbirth Educator

## Tidewater

American Society for Psychoprophylaxis in Obstetrics  
(A.S.P.O)

Childbirth Educator	Class I	Class II	Class III
<u>Childbirth Educator 0</u>			
Number Pretested	20	--	--
Number Eligible	16	--	--
<u>Childbirth Educator 1</u>			
Number Pretested	16	--	--
Number Eligible	6	--	--
<u>Childbirth Educator 2</u>			
Number Pretested	12	--	--
Number Eligible	8	--	--



TABLE 4 (continued)

Contributions of Subjects to Completing the Sample, by Class and Childbirth Educator

## Tidewater

American Society for Psychoprophylaxis in Obstetrics  
(A.S.P.O)

Childbirth Educator	Class I	Class II	Class III
<hr/>			
<u>Childbirth Educator 3</u>			
Number Pretested	12	--	--
Number Eligible	4	--	--
<hr/>			
<u>Childbirth Educator 4</u>			
Number Pretested	24	--	--
Number Eligible	18	--	--
<hr/>			
<u>Childbirth Educator 5</u>			
Number Pretested	28	--	--
Number Eligible	20	--	--
<hr/>			
	Total Pretested:		112
	Total Eligible:		72

TABLE 4 (continued)

## Contributions of Subjects to Completing the Sample, by Class and Childbirth Educator

## Tidewater

## Parenting and Childbirth Association of Tidewater (P.C.A.T.)

Childbirth Educator	Class I	Class II	Class III	Class IV
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Childbirth Educator 0

Number Pretested	16	20	10	10
Number Eligible	10	10	10	8

Childbirth Educator 1

Number Pretested	12	24	--	--
Number Eligible	10	14	--	--

Childbirth Educator 2

Number Pretested	16	10	--	--
Number Eligible	0	8	--	--

TABLE 4 (continued)

## Contributions of Subjects to Completing the Sample, by Class and Childbirth Educator

## Tidewater

## Parenting and Childbirth Association of Tidewater (P.C.A.T.)

Childbirth Educator	Class I	Class II	Class III	Class IV
<hr/>				
<u>Childbirth Educator 3</u>				
Number Pretested	12	--	--	--
Number Eligible	2	--	--	--
<hr/>				
		Total Pretested:		130
		Total Eligible:		72
<hr/>				
<u>Control Group Physicians 1-11</u>				
Number Pretested	--	--	--	
Number Eligible	--	--	--	
<hr/>				
		Total Pretested:		84
		Total Eligible:		72

TABLE 4 (continued)

Contributions of Subjects to Completing the Sample, by Class  
and Childbirth Educator

Northern Virginia

American Society for Psycholprophylaxis in Obstetrics  
(A.S.P.O.)

Childbirth Educator	Class I	Class II	Class III
<hr/>			
<u>Childbirth Educator 0</u>			
Number Pretested	3	5	7
Number Eligible	0	3	7
<hr/>			
<u>Childbirth Educator 2</u>			
Number Pretested	5	6	--
Number Eligible	5	4	--
<hr/>			
<u>Childbirth Educator 3</u>			
Number Pretested	3	5	--
Number Eligible	0	3	--
<hr/>			

TABLE 4 (continued)

Contributions of Subjects to Completing the Sample, by Class  
and Childbirth Educator

## Northern Virginia

American Society for Psychoprophylaxis in Obstetrics  
(A.S.P.O)

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Childbirth Educator	Class I	Class II	Class III
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---

Childbirth  
Educator 4

Number Pretested	7	6	4
---------------------	---	---	---

Number Eligible	5	5	4
--------------------	---	---	---

---

Total Pretested:	102
Total Eligible:	72

---

## Childbirth Education Association (C.E.A.)

Childbirth  
Educator 0

Number Pretested	12	--	--
---------------------	----	----	----

Number Eligible	8	--	--
--------------------	---	----	----

---

Childbirth  
Educator 2

Number Pretested	10	13	--
---------------------	----	----	----

Number Eligible	10	10	--
--------------------	----	----	----

---

TABLE 4 (continued)

Contributions of Subjects to Completing the Sample, by Class  
and Childbirth Educator

## Northern Virginia

## Childbirth Education Association (C.E.A.)

Childbirth Educator	Class I	Class II	Class III
<hr/>			
<u>Childbirth Educator 3</u>			
Number Pretested	2	9	--
Number Eligible	2	6	--
<hr/>			
<u>Childbirth Educator 4</u>			
Number Pretested	10	--	--
Number Eligible	8	--	--
<hr/>			
<u>Childbirth Educator 5</u>			
Number Pretested	5	7	--
Number Eligible	5	7	--
<hr/>			
	Total Pretested:	136	
	Total Eligible:	72	

TABLE 4 (continued)

## Contributions of Subjects to Completing the Sample, by Class

## Northern Virginia

## Childbirth Education Association (C.E.A.)

<u>Control Group</u> <u>Physicians 1-16</u>	Class I	Class II	Class III
Number Pretested	--	--	--
Number Eligible	--	--	--
	Total Pretested:	104	
	Total Eligible:	72	

To further document the implementation of treatments, the training programs for each site were matched for sameness of course content. Tidewater and Northern Virginia both had active chapters of A.S.P.O. The names for the other training programs differed only to reflect each chapter. The program in Tidewater was titled P.C.A.T. The analogous program in Northern Virginia was C.E.A. Each of these possess an I.C.E.A. membership number. However, what is more important in ascertaining likeness is the assurance that the course content is the same (Appendices G and I).

In both Tidewater and Northern Virginia, the experimental groups were obtained through the assistance of the childbirth educators administering the pretest to participants. The control groups were obtained through physicians' offices. In Northern Virginia, two health maintenance organizations were used because of availability of participants through their services. This did not alter the implementation of treatments because all participants remained as private patients who were pretested through the organizations in the same manner.

The original estimate of the number of childbirth educators (six per treatment) had to be modified for miscellaneous reasons. One educator was replaced by A.S.P.O. because she was still in training. P.C.A.T. only had four available educators; in Northern Virginia two



A.S.P.O. educators failed to comply, one stating she forgot, the other indicating she did not have any couples to volunteer. One C.E.A. educator did not respond.

### III. Documentation of Methods.

The uniformity of settings is documented by providing a description of each in regard to area served, per capita income, racial ethnic status and number of persons living in each area. The four participating hospitals in the Tidewater area serve the cities of Portsmouth, Norfolk, Chesapeake, and Virginia Beach. The per capita income of these cities is \$5,800. The racial ethnic status is 68.0 percent whites, 29.4 percent blacks, 2.2 percent Asian and Pacific residing in the Tidewater area.

The three participating hospitals in the Northern Virginia area serve the cities of Alexandria, Arlington, Falls Church and Fairfax City. The per capita income of these cities is \$9,000. The racial ethnic status is 82.2 percent whites, 9.9 percent blacks, 5.7 percent Asian and Pacific residing in these cities (U.S. Bureau of the Census, 1980 Census of Population).

The uniformity of data collection was assured by researcher meetings to explain the study and provide directions to childbirth educators and to the contact person at each physician's offices. All posttesting was carried out by only one person in each of the two areas. The same

directions were given to each participant and the mother and father were tested at the same time. The directions were to complete the test in 15 minutes and that no questions would be answered after the test began. Hospital records were checked to verify such information as: type of delivery, when last medicated, any signs of complications since delivery such as infection, baby's gestational age and the physician's report of the baby's physical.

IV. Document factors of reactivity in testing.

The same instructors participated throughout the study and the same two persons carried out all of the posttesting, providing consistency of testors and test content across all participants. The participants' physical eligibility for testing and the equality of time interval from delivery to testing was ascertained. This included assuring that all female participants were without pain at the time of posttesting and that they were absent of any complications related to the delivery. It was determined that all participants who experienced cesarean birth were posttested on the fourth day following delivery and that all participants who experienced vaginal birth were posttested at least 48 hours postpartum. Mothers and fathers each completed separate posttests. The pre- and posttest were coded, with the mother designated by an A and the father designated by a B (example AT1A and AT1B). This served to

assure that the pre- and posttest were matched for each couple and assured the independence of completing the pre- and posttest. It was also determined that all babies born to the participants were full-term, healthy, normal babies.

Control for complexity of statistics was accomplished by assuring equal cell sizes. Subjects were chosen by naturalistic order of availability.

V. Documentation of techniques to control data.

The time interval from pretest to posttest was sufficient for forgetting the items on the pretest. Covariance was used to control for group differences in pretest attitudes.

The researcher could not control totally for the interest or relationship between participants, physicians, or staffs. Some physicians were aware of the criteria used in the study; however, staff was unaware. The childbirth educators were all aware of the criteria used for the study. However, results of the data indicate it highly unlikely that any efforts were made to influence the outcomes of the study.

An explanation of pretest and posttest non-eligible participants is presented in Table 5. This table is based on an average class size of 12 couples (24 participants).

TABLE 5

Explanation of Pretest and Posttest  
Non-eligible Participants

	Expected Number		Number Pre-tested		Not Pre-test Eligible		Not Posttest Eligible	
	#	%	#	%	#	%	#	%
<u>Tidewater</u>								
A.S.P.O. 6 classes	144	100	112	78	24	22	16	14
P.C.A.T. 9 classes	216	100	130	60	38	29	20	15
Control Group			84	100	3	4	9	7
<u>Northern Virginia</u>								
A.S.P.O. 10 classes	240	100	102	43	16	16	14	14
C.E.A. 8 classes	192	100	136	71	48	35	16	12
Control Group			104	100	4	4	28	27

These data display a high degree of acceptance by the general public of the basis for the study. Pretested participants became ineligible if either the mother or father supplied any of the following information on their data sheet: not the first pregnancy; not married; not between the ages of 18 and 35; had a previous course in childbirth; were or had been a member of the health profession; were not planning to deliver in any of the participating hospitals. Some participants were lost because the childbirth educator gave participants incorrect directions in filling out the pretest, e.g., both the mother and father filled out the same pretest or the consent was not signed or properly witnessed. Participants were lost on two occasions because the researcher had not obtained clearance from the hospital where those participants were to deliver in time for the delivery. Lastly, some participants were lost because delivery occurred before they completed their program.

Posttest participants became ineligible under the following conditions: the mother received medication for pain within two hours of posttesting; the baby's condition was poor or it was born prematurely; the mother was experiencing a complication related to the delivery, e.g.; hemorrhage; delivery occurred more than three weeks after completing the pretest; the participant was discharged before it was time to administer the posttest; and, some

participants, more from the control group, failed to call to notify the researcher of the delivery. None of the participants refused to take the posttest following their delivery.

There is no documentation available for this study with regard to the number of couples who refused to participate in the study either at the time of their last childbirth class or at the various physicians' offices. Although this information was requested by the researcher and was provided by some at times and not at other times, this is one instance where the researcher was unable to maintain control. Attempts to estimate refusals were made using average class size information of 12 as shown in Table 5. This represents the major threat to generalizability to the entire population because the number who refused or did not want to participate is not known.

### Case Results

The intent of the case study was to ascertain the differences in parents attitudes across three levels of childbirth education. The criterion used was the Marut and Mercer Questionnaire Measuring Attitudes About Labor and Delivery Experience. This questionnaire was a Likert attitude scale.

The study further analyzed the differences between the attitudes of husband and wife and across type of birth, vaginal or cesarean deliveries.

### Sample Studied

The sample was derived from two areas, Tidewater and Northern Virginia. The participants in the study are described in the following demographic tables.

TABLE 6  
Age Groups of Participants in Case Study

Tidewater	Under 18		18-25		26-35		over 35	
	#	%	#	%	#	%	#	%
Males	0	0	30	28	78	72	0	0
Females	0	0	50	46	58	54	0	0
Northern Virginia	Under 18		18-25		26-35		over 35	
	#	%	#	%	#	%	#	%
Males	0	0	13	12	95	88	0	0
Females	0	0	26	24	82	76	0	0

Table 6 displays the age groups of the participants including the mothers and the fathers. These frequencies are representative of the typical childbearing age group. The frequencies indicate that the Northern Virginia sample is older than the Tidewater sample.

TABLE 7

## Ethnic Groups of Participants in Case Study

Tidewater	Black		White		Asian/Pacific	
	#	%	#	%	#	%
Males	23	21	73	68	12	9
Females	21	19	74	69	13	8
Northern Virginia	Black		White		Asian/Pacific	
	#	%	#	%	#	%
Males	10	9	86	80	12	11
Females	10	9	87	80	11	11

Table 7 indicates the ethnic structure of the participants. The percent of black, white, Asian and Pacific are reflective of the local percent of the population in the Tidewater area, including the cities of Chesapeake, Norfolk, Virginia Beach, and Portsmouth. The percent of black, white, Asian and Pacific are reflective of the local percent of the population in the Northern Virginia area, including the cities of Alexandria, Arlington, Falls Church and Fairfax City. The only differences in the two samples are that the Tidewater sample includes more black parents than are included in Northern Virginia.



## Analysis of Results

Because an exact parallel for the two locations was lacking, location was not considered as an independent variable. Instead, the two locations were treated as parallel replications. Therefore, the results for each location are reported individually.

### Results for Tidewater

Table 8 reports the marginal means and standard deviations for both the pretest and the posttest for the Tidewater study.

TABLE 8

Pretest and Posttest Marginal Means and Standard Deviations of Responses to the Marut and Mercer Questionnaire Measuring Attitudes about Labor and Delivery Experience

## Tidewater

		Pretest			Posttest		
<u>Females</u>	M	Sd	N	M	Sd	N	
Vaginal Birth							
TT <sub>1</sub>	111.82	12.68	17	106.17	13.37	17	
TT <sub>2</sub>	110.86	9.48	15	113.26	20.77	15	
TT <sub>3</sub>	99.16	9.29	18	106.11	14.27	18	
Cesarean Birth							
TT <sub>1</sub>	112.11	12.06	18	91.94	13.46	18	
TT <sub>2</sub>	108.35	8.54	14	94.50	18.15	14	
TT <sub>3</sub>	99.88	9.00	18	100.44	10.63	18	

TABLE 8 (continued)

Pretest and Posttest Marginal Means and Standard Deviations of Responses to the Marut and Mercer Questionnaire Measuring Attitudes about Labor and Delivery Experience

## Tidewater

<u>Males</u>	Pretest			Posttest		
	M	Sd	N	M	Sd	N
Vaginal Birth						
TT <sub>1</sub>	112.64	12.70	17	106.00	16.48	17
TT <sub>2</sub>	116.00	14.43	7	127.42	20.54	7
TT <sub>3</sub>	101.88	12.71	18	107.94	10.64	18
Cesarean Birth						
TT <sub>1</sub>	113.38	15.41	18	96.50	9.74	18
TT <sub>2</sub>	109.81	13.60	11	100.72	16.66	11
TT <sub>3</sub>	96.05	11.46	18	102.11	11.84	18

TT<sub>1</sub> = American Society for Psychoprophylaxis in Obstetrics, Tidewater Chapter

TT<sub>2</sub> = Parenting and Childbirth Association of Tidewater

TT<sub>3</sub> = Tidewater Control Group (Treatment Three)

NOTE: Missing cases are primarily because of the male's inability to answer questions about the actual delivery.

The table of marginal means and standard deviations is presented to establish the level of response and to aid in the interpretation of the planned analysis of covariance. The posttest scores were subjected to a three-way analysis of covariance, controlling for pretest response. The levels for this analysis were: the two childbirth preparation programs and the control; the sex of the respondents; and the type of birth.

In the conduct of this analysis it was discovered that the pretest was not instrumental in explaining or adjusting the posttest to ascertain main effects and interactions across these levels.

Table 9 shows the regression relationships of the pretest to the posttest. Since the pretest failed to explain adequate variance, the research questions were then addressed in a three-way analysis of variance using the same classifications as were planned for the analysis of covariance.

TABLE 9

Analysis of Variance in Posttest Attitudes  
Explained by Pretest Attitude

Source	SS	Df	MS	F	P
Between	60.59	1	60.59	0.29	NS
Within	37142.60	176	211.04		
Total	37203.19	177			

Table 10 displays the variance partitions created by the three-way analysis of variance. These results were used in addressing the three research questions asked in the case.

TABLE 10

Analysis of Variance of Posttest Attitude  
Responses Across Levels of Childbirth  
Preparation, Sex and Delivery Type

Source	SS	Df	MS	F
Childbirth Preparation (T)	1504.69	2	752.35	3.57*
Type of Birth (B)	6579.28	1	6579.28	31.19*
Sex (S)	350.87	1	350.87	1.66
(T) x (B)	2477.43	2	1238.71	5.87*
(T) x (S)	11.72	1	11.72	.06
(B) x (S)	346.90	2	173.45	.82
(T) x (B) x (S)	371.12	2	185.56	.88
Residual	34804.76	165	210.94	
Total	46446.77	176		

\*  $P < .05$

The main effect of childbirth preparation produced an  $F(2,165)=3.57$  which was significant at the  $P<.05$  level. A Newman-Keuls Multiple contrast test was performed to ascertain which childbirth preparations were different. A.S.P.O. with a mean of 99.73 was compared with P.C.A.T. which had a mean of 106.82, producing a t-coefficient of 2.80 for 165 degrees of freedom, significant at  $P<.05$ .

The other Newman-Keuls contrasts were non-significant; A.S.P.O. to control  $t=1.75$  and P.C.A.T. to control  $t=.66$ . Two other effects were found significant. The main effects for delivery type produced  $F(1,165)=31.19$ , also significant at  $P<.05$ . The interaction between childbirth preparation and delivery type produced an  $F(2,165)=5.87$  also significant at  $P<.05$ . These data were used to address the research questions for Tidewater.

Research Question No. 1: Do parents who experience cesarean birth have less positive attitudes of the birth experience than those who experience a vaginal birth?

TABLE 11

Marginal Means of Posttest Parent  
Attitudes Across Type of Birth

	Vaginal Birth	Cesarean Birth
Means	109.250	97.61
N	92	97

A significant ( $P < .05$ )  $F(1,165) = 31.19$  was found between parents delivering by cesarean and parents experiencing vaginal delivery. Therefore, parents who experienced birth by cesarean are less positive than parents who experienced vaginal birth.



Research Question No. 2: Are there differences in parents' attitudes across different types of childbirth preparation classes?

TABLE 12

Marginal Means of Posttest Attitudes  
Across Types of Childbirth Preparation

	TT <sub>1</sub>	TT <sub>2</sub>	TT <sub>3</sub>
Means	99.73	106.82	104.15
N	70	47	72

TT<sub>1</sub> = American Society for Psychoprophylaxis in Obstetrics, Tidewater Chapter

TT<sub>2</sub> = Parenting and Childbirth Association of Tidewater

TT<sub>3</sub> = Tidewater Control Group (Treatment Three)

Comparison of main effects across the groups of parents who received either A.S.P.O., P.C.A.T. childbirth preparation, or subjects who were not prepared produced an  $F(2,165)=3.57$  which was significant at  $P<.05$ . A Newman-Keuls analysis showed that the difference was between A.S.P.O. and P.C.A.T., where A.S.P.O. was more negative. There was no significant ( $P<.05$ ) difference between P.C.A.T. and the control group.

Research Question No. 3: Do parents among the non-prepared group who experience a cesarean birth have less positive attitudes of the birth experience than those parents prepared by either of the two childbirth preparation programs? Does type of birth interact with these differences?

TABLE 13

Marginal Posttest Attitudes for Cells Created by Type of Delivery Across Type of Childbirth Preparation

Treatment	Vaginal Birth		Cesarean Birth	
	M	N	M	N
TT <sub>1</sub>	106.09	34	94.22	36
TT <sub>2</sub>	117.77	22	97.24	25
TT <sub>3</sub>	108.03	36	101.28	36

TT<sub>1</sub> = American Society for Psychoprophylaxis in Obstetrics, Tidewater Chapter

TT<sub>2</sub> = Parenting and Childbirth Association of Tidewater

TT<sub>3</sub> = Tidewater Control Group (Treatment Three)

A significant first order interaction ( $P < .05$ ),  $F(2,165) = 5.87$  was found between type of delivery and type of childbirth preparation. Table 13 shows that this interaction is between the P.C.A.T. and the control group and between the A.S.P.O. and the control. The effects of cesarean birth on parents receiving no childbirth preparation is much less damaging to their attitudes than a cesarean birth is to either group of parents receiving childbirth education.

## Results of Northern Virginia

Table 14 reports the marginal means and standard deviations for both the pretest and the posttest for the Northern Virginia study.

TABLE 14

Pretest and Posttest Marginal Means and Standard Deviations of Responses to the Marut and Mercer Questionnaire Measuring Attitudes about Labor and Delivery Experience

## Northern Virginia

		Pretest			Posttest		
<u>Females</u>	M	Sd	N	M	Sd	N	
<b>Vaginal Birth</b>							
NVT <sub>1</sub>	109.33	14.49	15	117.87	11.74	15	
NVT <sub>2</sub>	113.82	9.55	17	110.53	10.81	17	
NVT <sub>3</sub>	102.53	11.62	17	112.00	10.93	17	
<b>Cesarean Birth</b>							
NVT <sub>1</sub>	115.47	13.05	17	91.94	19.88	17	
NVT <sub>2</sub>	107.18	8.74	17	99.94	7.23	17	
NVT <sub>3</sub>	102.117	8.83	18	97.11	6.31	18	

TABLE 14 (continued)

Pretest and Posttest Marginal Means and Standard Deviations of Responses to the Marut and Mercer Questionnaire Measuring Attitudes about Labor and Delivery Experience

## Northern Virginia

		Pretest			Posttest		
<u>Males</u>	M	Sd	N	M	Sd	N	
Vaginal Birth							
NVT <sub>1</sub>	113.73	17.83	11	113.82	13.11	11	
NVT <sub>2</sub>	105.81	12.76	16	113.31	12.01	16	
NVT <sub>3</sub>	106.00	8.17	18	109.17	13.57	18	
Cesarean Birth							
NVT <sub>1</sub>	114.08	17.72	15	92.69	13.42	13	
NVT <sub>2</sub>	113.00	8.91	16	103.56	10.26	16	
NVT <sub>3</sub>	102.94	12.49	18	100.78	6.80	18	

- NVT<sub>1</sub> = American Society for Psychoprophylaxis in Obstetrics, Washington, D.C. Chapter  
 NVT<sub>2</sub> = Childbirth Education Association, Washington Metropolitan Area  
 NVT<sub>3</sub> = Northern Virginia Control Group (Treatment Three)

NOTE: Missing cases are primarily because of the male's inability to answer questions about the actual delivery.

The table of marginal means and standard deviations for Northern Virginia replicates those parameters reported in Table 8 for Tidewater. Visual comparison of the two tables reveal that in most cases the two samples are indeed very similar except for the more positive pretest-posttest attitudes for  $NVT_2$  in Northern Virginia than for  $TT_2$  in Tidewater. Generally  $TT_1$  and  $NVT_1$  posttest show large standard deviations when compared to  $TT_3$  and  $NVT_3$ , standard deviations with  $TT_2$  and  $NVT_2$  falling between the extremes. This would indicate the presence of a differential training effect in the groups. That is, the increased posttest variances show that the treatment affected members in the group differently.

In the conduct of the data analysis to address the research questions, the covariate pretest failed to explain the significant percentage of variance for the posttest for Northern Virginia.

Table 15 shows the variance partition results relating the pretest to the posttest attitudes measured for Northern Virginia.

TABLE 15

Analysis of Variance in Posttest Attitudes  
Explained by Pretest Attitude

Source	SS	Df	MS	F	P
Between	79.81	1	79.81	0.56	NS
Within	23907.60	169	141.47		
Total	23987.41	170			

Table 16 shows the variance partitions resulting from the analysis of variance of the Northern Virginia posttest attitudes. Again, these results were used to address the research questions for the case.

TABLE 16

Analysis of Variance of Posttest Attitude  
Responses Across Levels of Childbirth  
Preparation, Sex and Delivery Type

Source	SS	Df	MS	F
Childbirth Preparation (T)	359.28	2	179.64	1.29
Type of Birth (B)	10347.31	1	10347.31	74.27*
Sex (S)	42.54	1	42.54	.31
(T) x (B)	1577.95	2	788.98	5.66*
(T) x (S)	171.26	2	85.63	.61
(B) x (S)	274.63	1	274.63	1.97
(T) x (B) x (S)	63.09	2	31.54	.22
Residual	205077.80	180	139.32	
Total	217913.86	191		

\*  $P < .05$

No significant main effects ( $P < .05$ ) were found for either childbirth preparation or sex. The nonsignificance for sex replicates the Tidewater finding; however, the significant main effects ( $P < .05$ ) in preparation found in Tidewater were not replicated in Northern Virginia. This lack of replication may be explained by two potential differences in the settings. First, it was pointed out that the NVT<sub>2</sub> group was more positive in Northern Virginia than was the Tidewater TT<sub>2</sub> group. This more positive attitude might be because of the age difference between the two samples. Second, there is the possibility that although the identified course content is the same in the two settings, there was a differential emphasis on course content parts made during the instruction. No Newman-Keuls Multiple Contrast was computed due to the lack of significance across the childbirth preparation main effect.

The main effect of the type of birth was found significant ( $P < .05$ ) in Northern Virginia,  $F(1,180)=74.27$ . This replicated the Tidewater finding that a greater negative reaction to cesarean birth type existed than to the vaginal birth type. In the Northern Virginia analysis, one significant first order interaction ( $P < .05$ ) was found between childbirth preparation and delivery type  $F(2,180)=5.66$ . This replicates the Tidewater findings. No other significant interactions ( $P < .05$ ) were found.



Research Question No. 1: Do parents who experience cesarean birth have less positive attitudes of the birth experience than those who experience a vaginal birth?

TABLE 17

Marginal Means of Posttest Parent  
Attitudes Across Type of Birth

	Vaginal Birth	Cesarean Birth
Means	112.564	97.83
N	94	97

A significant ( $P < .05$ )  $F(1,180) = 74.27$  was found between parents delivering by cesarean and parents experiencing vaginal delivery. Therefore, parents who experienced birth by cesarean are less positive than parents who experienced vaginal birth.

Research Question No. 2: Are there differences in parents' attitudes across different types of childbirth preparation classes?

TABLE 18

Marginal Means of Posttest Attitudes  
Across Types of Childbirth Preparation

	NVT <sub>1</sub>	NVT <sub>2</sub>	NVT <sub>3</sub>
Means	103.35	106.78	104.66
N	56	66	71

NVT<sub>1</sub> = American Society for Psychoprophylaxis in  
Obstetrics, Washington, D.C. Chapter  
 NVT<sub>2</sub> = Childbirth Education Association, Washington  
Metropolitan Area  
 NVT<sub>3</sub> = Northern Virginia Control Group (Treatment Three)

No main effects significant difference ( $P < .05$ ) for childbirth preparation was found in Northern Virginia.

Research Question No. 3: Do parents among the non-prepared group who experience a cesarean birth have less positive attitudes of the birth experience than those parents prepared by either of the two childbirth preparation programs? Does type of birth interact with these differences?

TABLE 19

Marginal Posttest Attitudes for Cells Created by  
Type of Delivery Across Type of Childbirth Preparation

Treatment	Vaginal Birth		Cesarean Birth	
	M	N	M	N
NVT <sub>1</sub>	116.16	26	92.26	30
NVT <sub>2</sub>	111.88	33	101.69	33
NVT <sub>3</sub>	110.54	35	98.95	36

NVT<sub>1</sub> = American Society for Psychoprophylaxis in  
Obstetrics, Washington, D.C. Chapter  
NVT<sub>2</sub> = Childbirth Education Association, Washington  
Metropolitan Area  
NVT<sub>3</sub> = Northern Virginia Control Group (Treatment Three)

A significant first order interaction ( $P < .05$ ),  $F(2,180) = 5.66$  was found between type of delivery and type of childbirth preparation. Table 19 shows that this interaction is between the C.E.A. and the control group and between the A.S.P.O and the control group. The effects of cesarean birth on parents receiving no childbirth preparation is much less damaging to their attitudes than a cesarean birth is to either group of parents receiving childbirth education.

CHAPTER V  
SUMMARY, CONCLUSIONS, RECOMMENDATIONS,  
IMPLICATIONS, AND RESEARCHER'S REACTIONS

Introduction

The summary of findings, the conclusions, the recommendations and the implications are given for each of the research purposes. After these are reported, the researcher has presented reactions that are associated with but which are beyond the context of this research. This study addressed two research purposes:

1. To document the management of a quasi-experimental research study across two types of institutional settings in two locations. The institutional settings are hospitals and physicians' offices. The two locations are Tidewater, Virginia and Northern Virginia.

2. To compare the effects of childbirth preparation and the type of delivery on parents' attitudes toward their labor and delivery experience. The childbirth preparation had three levels: instruction following the course content of the American Society for Psychoprophylaxis in Obstetrics (A.S.P.O.), instruction following the course content of the Childbirth Education Association (C.E.A.), and the non-prepared. The types of delivery considered were vaginal and cesarean birth.

## Summary of the Study

### Findings and Summary for the First Research Purpose

In Chapter IV documentation of the management procedures used to successfully complete this quasi-experimental design in two naturalistic settings was presented. In summary, the researcher:

1. Identified all required clearances and consents, developed forms to secure them, and secured all that were required. No difficulty was encountered in obtaining participant and institutional compliance. However, it should be noted that a considerable expenditure of public relations efforts, time, and personal attention were required to successfully complete this phase of the study. The researcher notes that this process enabled personal contact with individuals in the study and permitted the rejection of one institution which could have biased the design had it been included in the study.

2. Used checkpoints and training to assure that all components of the design were properly implemented. Results of these checks are reported in Chapter IV. Important to note is that the equal-cell size of the design was not achieved because of missing responses, on the criterion instrument, mostly by males. The researcher now recognizes that the pilot which tested the instrument should have been

extended to include actual deliveries. The inclusion of actual deliveries would have allowed the researcher to become aware of the inappropriateness of the instrument for males and might have resulted in a more effective design. In the documentation of uniformity, the two samples studied were representative of the two communities. However, both the cost of living and the per capita income of Northern Virginia is greater than Tidewater. Due to these observed differences in the two settings, a design decision was made to treat the Northern Virginia study as a replication of the Tidewater study. All other threats to external and internal validity were addressed and controls for them were met.

3. Gathered documentation for implementation of treatment, of methods, of factors of reactivity in testing, and of data flow control through the checkpoint process and maintenance in log form. Although all concerns identified in the design were addressed, more intense analysis of one concern was needed. Therefore, congruency of treatment levels was assured by matching the curricula for childbirth education across settings and interviews with the educators. However, results of the experiment suggest that one treatment level across the two settings may have differed in educator emphasis.

Maintenance of a research log is highly recommended and provides the researcher with both documentation and

important reminders of significant study events. The application of systematic procedures in the design of the study implementation prevents last minute trouble shooting that often threatens the success of a study. Gathering consents and clearances provides a vehicle for researcher personal contact, essential for the success of the study. Establishing files of consent forms, data, and documentation of study components will provide valuable information for any secondary analyses found desirable after the completion of the study. The researcher believes that this documentation process is an essential procedure to successful field experimentation and that field experimentation can be done if correct protocols are followed.

#### Findings and Summary for the Second Research Purpose

The second research purpose, to compare the effects of childbirth preparation and the type of delivery on parents' attitudes toward their labor and delivery experience, was the case used to conduct a quasi-experiment in a complex field setting.

In the case, three research questions were investigated:

#### Summary of Findings Research Question No. 1:

Do parents who experience cesarean birth have fewer positive attitudes of the birth experience than those who

experience a vaginal delivery?

Findings: Parents who experience cesarean birth do have less positive attitudes of the birth experience than do those who experience a vaginal birth. Less positive attitudes were found in both settings. In Tidewater an  $F(1,165)=31.19$  while in Northern Virginia, an  $F(1,180)=74.27$  was found for type of birth. Both statistics were significant at  $P<.05$  and both indicated more positive attitudes for vaginal birth experiences. In Tidewater attitudes for vaginal birth averaged 109.25 and for cesarean birth 97.61. In Northern Virginia attitudes for vaginal birth averaged 112.56 and for cesarean birth 97.82. In both cases a higher score shows a more positive attitude.

Summary of Findings Research Question No. 2:

Are there differences in parents' attitudes across different types of childbirth preparation classes?

Findings: The findings of research question 2 were inconclusive. In the Tidewater area, significant differences ( $P<.05$ ) between the group that received the training under A.S.P.O. sponsorship and the other two groups were found,  $F(2,165)=3.57$ . The A.S.P.O. group had more negative attitudes (mean of 99.73) than were found for P.C.A.T. (mean of 106.82) and the control group (mean of 104.15). However, in Northern Virginia no significant ( $P<.05$ ) differences between the three levels of training



were found. Averages for the group were: A.S.P.O. 103.35; C.E.A. 106.78 and the control group 104.66. The uniqueness of the Tidewater A.S.P.O. is believed to be a difference due to instructional emphasis.

Summary of Findings Research Question No. 3:

Do parents among the non-prepared group who experience a cesarean birth have fewer positive attitudes of the birth experience than those parents prepared by either of the two childbirth preparation programs? Does type of delivery interact with these differences?

Findings: In both research settings parents who experienced cesarean births and received childbirth education displayed more negative attitudes than either parents who experienced vaginal birth or parents who experienced cesarean birth and received no childbirth education. In Tidewater, the first order interaction between childbirth education and type of birth produced a significant ( $P < .05$ )  $F(2,165) = 5.87$ . In Northern Virginia, the first order interaction produced a significant ( $P < .05$ )  $F(2,180) = 5.66$ . Average attitude measures for parents receiving cesarean births and childbirth education for Tidewater were: A.S.P.O. 94.22 and P.C.A.T. 97.24; for Northern Virginia A.S.P.O. 92.266 and C.E.A. 101.69. These are more negative than the other group combinations. Average attitude measures for parents experiencing cesarean

birth and having no childbirth education were: for Tidewater 101.28 and for Northern Virginia 98.95. Average attitudes for parents experiencing vaginal births were: for Tidewater A.S.P.O. 106.09; P.C.A.T. 117.77; and the control group 108.03; for Northern Virginia A.S.P.O. 116.16; C.E.A. 111.88; and the control group 110.54.

### Conclusions

From these findings the following conclusions are made:

Research Question No. 1: Do parents who experience cesarean birth have fewer positive attitudes of the birth experience than those who experience a vaginal birth?

Based upon the findings of this study, parents experiencing cesarean births have more negative attitudes than those who experienced a vaginal birth. These findings are in agreement with numerous other studies, including Hedahl (1980); Lipson (1980); and Marut and Mercer (1979). These studies reported such findings as women "perceiving their cesarean birth as significantly different from those women who delivered vaginally." These authors also reported that women were "less satisfied with their experiences and with themselves." The Cranley, Hedahl, and Pegg (1983) study hypothesized that "women who have an emergency cesarean birth will have less positive perceptions of the

experience than either those who deliver vaginally or those who deliver by planned cesarean." This hypothesis was supported in the Hedahl study ( $F_{2,119}=12.68$ ;  $p=.000$ ).

Research Question No. 2:

Are there differences in parents' attitudes across different types of childbirth preparation classes?

There was inconclusive evidence that the type of childbirth education influenced the attitudes of parents experiencing vaginal birth. The findings of this study demonstrated that parents who experienced cesarean birth had more negative attitudes regardless of whether or not they had childbirth education.

Studies that lend support to the inclusive finding in this study regarding parents experiencing vaginal birth refer to the issue of control. Huttel, Mitchell, Fischer, and Meyer (1972); and Stevens and Heide (1977) contend that the childbirth classes attended most often are those which prepare parents for a Lamaze childbirth. Lamaze is described in these studies as a method utilizing a "combination of techniques which effectively focus the mother's mental activities away from any pain and toward her immediate tasks, thus decreasing the pain experiences. Decreased pain lessens the amount of medication needed during childbirth, thus the mother achieves control."

Felton and Segelman (1978) speak to the issue of

control in their article Lamaze Childbirth Training and Changes in Belief About Personal Control. The purpose of the Felton and Segelman study was to learn and measure the degree to which beliefs concerning origin of control and its consequences might change among parents who complete Lamaze childbirth classes. The results indicated that the experience of Lamaze training and childbirth had a significant impact on the participants' perception of where personal control lies. In their study, it was hypothesized "that both men and women would change significantly toward seeing themselves as control agents by the end of the training." That is not what the Felton study found. Only the men saw themselves as control agents significantly more than before. Women saw external factors as controlling.

The issue becomes the concept of control; that is, do couples who take childbirth classes expect to be more in control of their delivery experience? Most authors [Buxton (1962); Donovan (1953); and Yahla (1965)] assume that it is primarily the relief of pain resulting from learned internal control that accounts for satisfaction with educated childbirth.

Willmuth (1975) reviewed evaluative reports by women participating in a prepared childbirth program. The reports were examined in an attempt to clarify factors associated with satisfaction of labor and delivery experience. The

perception of maintaining control was closely associated with satisfaction in a series of 145 women.

As reported earlier, results of this study in the Tidewater area indicated that there was a significant difference ( $P < .05$ ) between the group that received the training under A.S.P.O. sponsorship and the other two groups. The A.S.P.O. group had more negative attitudes. It is extremely important to note that the frequency of A.S.P.O. participant responses to question seven on the pretest, "I expect to be well in control during labor" were: not very much, 0.0 percent; moderately, 29.2 percent; very much, 51.4 percent; and extremely, 19.4 percent. However, on the posttest frequency of responses to question seven, "How well in control were you during delivery?" were: not very much, 8.3 percent; moderately, 34.7 percent; very much, 52.8 percent; and extremely, 4.2 percent.

The other question of importance in this regard was number eight. Frequency of participant responses to question eight on the pretest, "I expect to be well in control during delivery" were: not at all, 0.0 percent; not very much, 4.2 percent; moderately, 34.7 percent; very much, 41.7 percent; and extremely, 19.4 percent. However, on the posttest frequency of responses to question eight, "How well in control were you during delivery?" were: not at all, 2 percent; not very much, 20.8 percent; moderately, 41.7

percent; very much, 31.9 percent; and extremely, 2.8 percent. This finding agrees with those of the studies cited.

With regard to this conclusion, parents in the control groups regardless of type of birth appeared to have more positive attitudes toward their birth experience. It is most likely that informal instruction as opposed to no instruction is responsible for this effect.

Research Question No. 3:

Do parents among the non-prepared group who experience a cesarean birth have fewer positive attitudes of the birth experience than those parents prepared by either of the two childbirth preparation groups? Does type of delivery interact with these differences?

Parents receiving childbirth education and experiencing cesarean birth suffered the greatest degree of negative attitudes about their birthing experience. In both research settings, parents who experienced cesarean birth and received childbirth education displayed more negative attitudes than either parents who experienced vaginal birth or than parents who experienced cesarean birth and received no childbirth education.

Donovan and Allen (1977) reached this same conclusion from their research in the cesarean birth method. Donovan and Allen also reported that "a major component of poor

cesarean birth experience is fear of the unknown." Their implication is that couples attending traditional, prepared childbirth where vaginal birth is referred to as "regular," "normal," or "natural," are totally unprepared for cesarean birth. They further imply that, therefore, couples might assume that there is something "irregular, abnormal, or unnatural, and thus wrong about having a cesarean birth."

Leach and Sproule (1984) also reported that cesarean delivery provokes many emotions in couples. They state that "the loss of a planned and anticipated vaginal delivery will propel the couple into a grieving process. Parents may have intense feelings of anger, denial, and guilt."

#### Implications Based Upon the Case

It is highly unlikely that parents in the control group actually received no childbirth education. Instead, it is more likely that the childbirth education they received was informal and transmitted through friends and family. Hence, it is not surprising that all three groups experiencing vaginal birth were alike in regard to posttest attitude. The two education programs studied can be argued then to be more formal modes of transmitting childbirth education for the natural delivery process.

The evidence of greater negative attitudes on the part

of parents experiencing cesarean birth and receiving childbirth education than on other parents, suggest that the restrictive course content in the programs is not adequate to prepare parents for cesarean. This raises the issue of control again. Considering that the cesarean process is increasing in use, better modes of preparation for this type of delivery are essential.

No preparation beyond informal, non-uniform education was shown to result in better attitudes of parents experiencing cesarean birth. The researcher believes that the absence of an early consideration and recognition of the possibility of cesarean birth, coupled with a lack of equal educational emphasis, are the major factors contributing to the observation of differences in attitude.

The findings and conclusions appear to imply that the childbirth education programs currently being offered fail to create better parental attitudes toward cesarean birth. From an educator's perspective, this implies a need for course content revision.

#### Recommendations for Action in Case Area

Based upon information provided in this chapter and the findings in Chapter IV, the following recommendations are being made for future research:



1. Address the potential for cesarean birth in childbirth education. The researcher believes an early and equal treatment of the topic is mandated for improving childbirth education.

2. Revise the course content of current programs to improve parents' attitudes toward the birthing experience and to attribute sources of negative attitudes to either feelings of body inadequacy, feelings of loss of personal control, or feelings of unexpected events.

3. Provide greater control and uniformity of the instructional staff, either through qualifications or supervision, to provide more uniform childbirth education.

#### Recommendations for Further Study in Case Area

1. Develop a better instrument to measure male attitudes regarding labor and delivery experience.

2. Repeat the study using random selection to better control for the social issue and include as part of the methodology, interviews with the participants reporting more negative attitudes to better investigate the origins of these attitudes.

3. Conduct a study to investigate and evaluate the reasons couples were satisfied or not satisfied with their prepared childbirth experience.

4. Conduct a study to determine correlation between the concept of control (internalization/externalization) among Lamaze and non-Lamaze prepared parents, including vaginal and cesarean births.

5. Repeat the study with a more extended population systematically deleting some of the delimitations placed on the sample studied in this research.

6. Conduct a study expanding the study methods to include reasons for parents' feelings concerning their birth experience.

7. Perform a longitudinal study to trace the relationship of negative feelings resulting from cesarean birth to the failure to bond with a child.

8. Perform a longitudinal study to investigate the relationship of early negative feelings resulting from cesarean birth to any tendencies toward child abuse.

#### Researcher's Reactions

The researcher believes that this study has contributed to field study methodology and has raised questions about an important aspect in our society. Childbirth education has failed to address the increasing use and perceived necessity for cesarean birth. As cesarean births increase in percentages, consumers have the need to understand the

process as a viable mode of birth. Childbirth education is failing to provide sources in which delivery by cesarean is treated as a type of birth. Treatment of parents experiencing cesarean fail to develop those positive attitudes usually associated with becoming parents.

Evidence developed in the study show more negative attitudes on the part of parents experiencing cesarean birth than on the part of parents experiencing vaginal birth. Extrapolations of these negative feelings could have great social importance. Such negative feelings are believed by some to be predecessors of failure to create bonding (Klaus and Kennel, 1982) and even by others as contributing to the roots of child abuse (Helfer, 1975, Lynch, 1977).

The researcher believes also that the factors which are associated with the apparent ineffectiveness of formal childbirth education are: the restrictiveness of the course content in regard to parent expectations; the emphasis of the course content on "naturalistic" delivery through rejection of medication and dependence on vaginal delivery; the implication of personal control; and the disparate qualifications required of the educators.

Medicine was designed to heal, alleviate pain and facilitate living. Yet, childbirth education appears to deny the utility of medicine. More awareness of modern medicine benefits are needed in the course content and

educators need to be qualified in regard to modern medicine and pain relief. Where is it written that if a woman receives medication to relief the pain of childbirth, that she fails at giving birth?

An area of great concern for this researcher is the attitude of educators regarding cesarean birth, as well as the need for uniformity of instruction by all educators.

This research was labor intensive, instructional and fulfilling. The documentation pertinent to the degree facilitated the purpose of the research objectives for the case. The case has provided evidence that should result in more intensive study of childbirth education.

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**APPENDIX A**  
**Parents Pretest Data Sheet**

CODE # \_\_\_\_\_

## DATA SHEET

Please circle correct response

1. Age:           under 18           18-25           26-35           over 35
2. Married:       Yes           No
3. First Pregnancy:       Yes           No
4. Previous course in childbirth:       Yes           No
5. Are you enrolled in a program for childbirth preparation?  
                   Yes           No

If yes, please circle the name of the program:

American Society for Psychoprophylaxis in Obstetrics  
(A.S.P.O.)

Childbirth Education Association (C.E.A.)

Parenting and Childbirth Association of Tidewater  
(P.C.A.T.)

6. Do you plan on enrolling in a program for childbirth preparation?       Yes           No
7. Are you or have you been a member of any medical and/or allied health profession?       Yes           No

Information on this page is strictly confidential. The number on this sheet corresponds to a number on the Marut and Mercer Perception of Birth Scale and the informed and voluntary consent-contractual document. This number is known only to the researcher.

**APPENDIX B**  
**Parents Consent Agreement**

CODE # \_\_\_\_\_

INFORMED AND VOLUNTARY CONSENT-CONTRACTUAL DOCUMENT  
FOR PARTICIPANTS

TO: Persons who agree to participate in this project

The following information is provided to inform you about a research project conducted by an Education Administration Doctoral Student as a dissertation. When you have read the document you will be asked to volunteer for the project. Any questions that you have about the procedures in this study will be answered. Please feel free to ask any questions you may have about this study and/or the information given below:

1. The procedures to be followed in this study and the purpose are described below:

The aim of this study is to investigate differences in reactions to the birth experience of parents prepared for childbirth by two different programs as compared to parents who were not participants of any childbirth preparation program. To achieve this aim it will be necessary for you to answer a short questionnaire on "Perception of Birth" before and after delivery. It will also be necessary for the researcher to review your hospital record in order to gather certain additional data, i.e., length of labor, medication administered, type of delivery, etc.

2. Your rights and/or privacy will be maintained in the following manner:

Any and all information gathered by the researcher pertaining to this study will be kept strictly confidential and will be used only for research purposes. No information about you will be traceable to you now or in the future. All information will be seen only by the researcher. All information used in research reports will be based on groups of people so that a particular individual cannot be identified. Results of the study will be made available to you upon request.

3. Statement by the person agreeing to participate in this project:

I have read this consent-contractual form. All my questions have been answered and I freely and voluntarily choose to participate.

\_\_\_\_\_  
DATE

\_\_\_\_\_  
SIGNATURE OF VOLUNTEER

\_\_\_\_\_  
DATE

\_\_\_\_\_  
SIGNATURE OF WITNESS

APPENDIX C

Marut and Mercer  
Pretest Questionnaire Measuring Attitudes  
About Labor and Delivery Experience



4. How relaxed do you expect to be during labor?

Not at  
all

Moderately

Extremely

1                    2                    3                    4                    5

5. How relaxed do you expect to be during the delivery?

Not at  
all

Moderately

Extremely

1                    2                    3                    4                    5

6. I anticipate a pleasant or satisfying feeling state during delivery.

Not at  
all

Moderately

Extremely

1                    2                    3                    4                    5

7. I expect to be well in control during labor.

Not at  
all

Moderately

Extremely

1                    2                    3                    4                    5

8. I expect to be well in control during delivery.

Not at  
all

Moderately

Extremely

1                    2                    3                    4                    5

9. To what extent do you expect you experience of having a baby will go along with your expectation of labor?

Not at  
all

Moderately

Extremely

1                    2                    3                    4                    5

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

Not at  
all

Moderately

Extremely

1                    2                    3                    4                    5



11. MOTHER: I expect my partner to be useful in helping me through labor.

Not at  
all

Moderately

Extremely

1 2 3 4 5

FATHER: I anticipate being useful to my partner through labor.

Not at  
all

Moderately

Extremely

1 2 3 4 5

12. MOTHER: I expect my partner to be useful in helping me through delivery.

Not at  
all

Moderately

Extremely

1 2 3 4 5

FATHER: I anticipate being useful to my partner through labor.

Not at  
all

Moderately

Extremely

1 2 3 4 5

13. I expect to be aware of events during labor.

Not at  
all

Moderately

Extremely

1 2 3 4 5

14. I expect to be aware of events during delivery.

Not at  
all

Moderately

Extremely

1 2 3 4 5

15. I anticipate an unpleasant or unsatisfying feeling state during delivery.

Not at all		Moderately		Extremely
5	4	3	2	1

16. I expect to remember labor as painful.

Not at all		Moderately		Extremely
5	4	3	2	1

17. I expect to remember delivery as painful.

Not at all		Moderately		Extremely
5	4	3	2	1

18. I expect to be scared during delivery.

Not at all		Moderately		Extremely
5	4	3	2	1

19. I expect to worry about the baby's condition during labor.

Not at all		Moderately		Extremely
5	4	3	2	1

20. I expect to worry about the baby's condition during delivery.

Not at all		Moderately		Extremely
5	4	3	2	1

21. I anticipate the equipment used during labor will bother me.

Not at all		Moderately		Extremely
5	4	3	2	1

22. I expect the delivery experience to be realistic as opposed to dream-like.

Not at all		Moderately		Extremely
1	2	3	4	5

23. I will have choices about interventions, i.e., examinations or treatments during labor.

Not at all		Moderately		Extremely
1	2	3	4	5

24. I expect my partner (or other person) to review my labor experiences with me.

Not at all		Moderately		Extremely
1	2	3	4	5

25. I anticipate feeling better after reviewing the labor and delivery experience.

Not at all		Moderately		Extremely
1	2	3	4	5

26. I anticipate being pleased with the delivery experience.

Not at all		Moderately		Extremely
1	2	3	4	5

27. How soon after delivery do you expect to touch your baby?

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

28. How soon after delivery do you expect to hold your baby?

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

29. Do you anticipate being able to enjoy holding your baby the first time?

Not at all		Moderately		Extremely
1	2	3	4	5

**APPENDIX D**  
**Parents Posttest Data Sheet**

CODE # \_\_\_\_\_

## DATA SHEET

- |    |   |       |    |
|----|---|-------|----|
| 1. | Was your baby delivered by cesarean birth?                      | Yes   | No |
|    | FATHER: Were you present for the birth?                         | Yes   | No |
| 2. | Was your baby delivered by vaginal birth?                       | Yes   | No |
|    | FATHER: Were you present for the birth?                         | Yes   | No |
| 3. | Are you and have you been without complications since delivery? | Yes   | No |
| 4. | Are you presently in any pain?                                  | Yes   | No |
| 5. | Is your baby healthy and normal?                                | Yes   | No |
| 6. | Did you attend all of your prepared childbirth classes?         | Yes   | No |
|    | If yes, what was the name of your program?                      |       |    |
|    | American Society for Psychoprophylaxis (A.S.P.O.)               | _____ |    |
|    | Childbirth Education Association (C.E.A.)                       | _____ |    |
|    | Parenting and Childbirth Association of Tidewater (P.C.A.T.)    | _____ |    |
| 7. | Were you a participant of any prepared childbirth program?      | Yes   | No |

Information on this sheet is strictly confidential. The number on this sheet corresponds to a number on the Marut and Mercer Perception of Birth Scale, and the informed and voluntary consent-contractual document. This number is known only to the researcher.

**APPENDIX E**

**Marut and Mercer  
Posttest Questionnaire Measuring Attitudes  
About Labor and Delivery Experience**

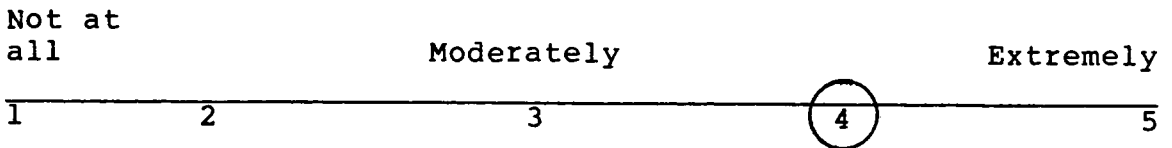
CODE # \_\_\_\_\_

QUESTIONNAIRE MEASURING ATTITUDES ABOUT LABOR AND DELIVERY EXPERIENCE

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

\*\*\*\*\*  
EXAMPLE:

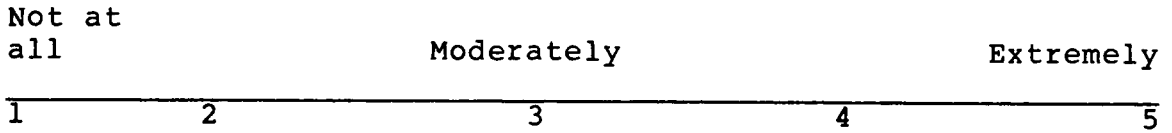
How relaxed were you during labor?



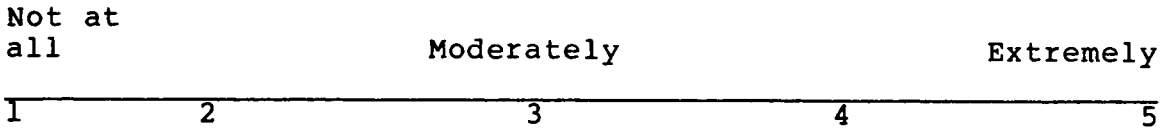
(This answer would indicate that you were very relaxed though not extremely relaxed.)

\*\*\*\*\*

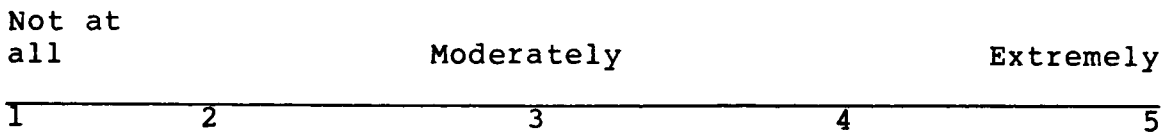
1. How successful were you in using the breathing or relaxation methods to help with contractions?



2. How confident were you during labor?



3. How confident were you during delivery?





4. How relaxed were you during labor?

Not at all  
1 2 3 4 5  
Moderately  
Extremely

5. How relaxed were you during the delivery?

Not at all  
1 2 3 4 5  
Moderately  
Extremely

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

Not at all  
1 2 3 4 5  
Moderately  
Extremely

7. How well in control were you during labor?

Not at all  
1 2 3 4 5  
Moderately  
Extremely

8. How well in control were you during delivery?

Not at all  
1 2 3 4 5  
Moderately  
Extremely

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

Not at all  
1 2 3 4 5  
Moderately  
Extremely

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

Not at all  
1 2 3 4 5  
Moderately  
Extremely

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

Not at all    Moderately    Extremely

---

1                          2    3    4    5

FATHER: How useful were you to your partner during labor?

Not at all    Moderately    Extremely

---

1                          2    3    4    5

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

Not at all    Moderately    Extremely

---

1                          2    3    4    5

FATHER: How useful were you to your partner in helping her 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

---

5                          4    3    2    1

16. Do you remember your labor as painful?

Not at all		Moderately		Extremely
5	4	3	2	1

17. Do you remember your delivery as painful?

Not at all		Moderately		Extremely
5	4	3	2	1

18. How scared were you during delivery?

Not at all		Moderately		Extremely
5	4	3	2	1

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

Not at all		Moderately		Extremely
5	4	3	2	1

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

Not at all		Moderately		Extremely
5	4	3	2	1

21. Did the equipment used during labor bother you?

Not at all		Moderately		Extremely
5	4	3	2	1

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 experiences 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

APPENDIX F

Course Outline -- Childbirth Education Association -  
Washington Metropolitan Area

CHILD BIRTH EDUCATION ASSOCIATION  
WASHINGTON METROPOLITAN AREA

The ICEA membership number is MG00262-30 NOV 1985.

General outline for six-week course:

- Class 1 . . . Introductions (teacher, assistant, class members, and course)  
Philosophy of Lamaze method  
Coach's involvement in birthing process  
Discussion of family-centered maternity care  
Physiology and anatomy  
Birth by slides  
Some relaxation techniques
- Class 2 . . . Review relaxation techniques  
Additional relaxation techniques  
Breathing techniques for labor and delivery  
Exercises to tone the muscles used in the breathing patterns  
Stages of labor  
Options available in the birthing process
- Class 3 . . . Emotional stages of labor  
Comfort techniques for labor  
Description of wide range of normal labors  
Preparation for unexpected outcomes of labor such as cesareans  
Birth film  
Review breathing patterns  
Additional breathing patterns  
Review relaxation techniques
- Class 4 . . . Mock labor rehearsal reviewing relaxation techniques, comfort aids, and breathing patterns  
Preparation for unexpected outcomes of labor such as cesareans if not covered in class 3 (Timing depends upon readiness of class)  
Birth film if not shown in class 3 (Depends upon availability of films)  
Uses and effects of medication  
Fetal monitoring

- Class 5 . . . Mock labor using Lamaze techniques of  
relaxation, comfort aids, and breathing  
patterns  
Breast feeding  
Parenting discussion
- Class 6 . . . Mock labor using Lamaze methods  
Question and answer time  
Discussion on post partum adjustment of new  
family in hospital and the first week at  
home  
Guest couple with new baby may visit the  
class for sharing of experience

**APPENDIX G**

**Course Outline - Parenting and Childbirth Association  
of Tidewater**



PARENTING AND CHILDBIRTH ASSOCIATION  
OF TIDEWATER

The ICEA membership number is MG00078.

General outline for six-week course:

- Class 1 . . . Introductions (instructor, class members, and class manual)  
Philosophy of Lamaze  
Coach's role  
Family-centered concept  
Physiology and anatomy of pregnancy -- labor and birth  
Birth slides  
Relaxation techniques
- Class 2 . . . Review from Class 1  
Relaxation techniques  
Breathing patterns for labor and delivery  
Exercises  
Stages of labor and "false labor"  
Choices in the birthing process
- Class 3 . . . Review from Class 2  
Emotional aspects of labor  
Progression in labor (normal)  
Preparation for unexpected delivery (i.e., cesarean birth)  
Birth film  
Breathing/relaxation techniques
- Class 4 . . . Review from Class 3  
Danger signs  
Medication and procedures  
Fetal monitoring: EFM, CST, NST  
Ultra sound, amnio
- Class 5 . . . Review Class 4 c practice  
Relaxation/breathing  
Breast feeding  
Parent discussion/coach role
- Class 6 . . . Review from Class 5  
Practice using Lamaze method (breathing pattern, relaxation, pushing)  
Discussion period  
Guest couple to discuss birthing experience  
Discussion of postpartum period and the family  
Emergency delivery

Optional

Class 7 . . . "Parenting Class"  
Introduction  
Diapering, Feeding, Bathing -- hands-on  
Film  
Pediatrician, if possible  
Discussion with questions and answers

APPENDIX H

Course Outline - American Society for Psychoprophylaxis  
in Obstetrics - Washington, D.C. Chapter

AMERICAN SOCIETY FOR PSYCHOPROPHYLAXIS  
WASHINGTON, D.C. CHAPTER

General outline for six-week course:

- Class 1 . . . Introduction  
Benefits  
Principles  
Anatomy/Physiology  
Relaxation Principles  
Active Relaxation  
Paced Breathing Principles  
Slow-Paced Breathing
- Class 2 . . . Nutrition  
Physical Conditioning  
Well-being Exercises  
Preludes/Signs Labor  
Stages of Labor  
Early Labor  
Touch-Release-Massage  
Modified Paced Breathing  
Hyperventilation
- Class 3 . . . Introduction/Review  
Neuromuscular Dissociation  
Patterned Paced Breathing  
Active Labor  
Role of Coach  
Fetal Monitor  
Tests/Ruptured Membranes  
Medication  
Back Labor  
Birth Film  
Sexuality
- Class 4 . . . Parenting  
Positions/Presentations  
Transition  
Second Stage/Birth  
Third Stage/Placental  
Expulsion  
Infant Procedures  
Hospital Procedures  
Bonding  
Recovery
- Class 5 . . . Cesarean Birth  
Breast and Bottle Feeding  
Hospital Admissions

Class 6 . . . Emergency Childbirth  
Uterine Changes  
Breast Changes  
Post-partum Blues  
Post-partum Exercise  
Family Planning  
Newborn  
Feeding the Infant  
Labor Rehearsal

APPENDIX I

Course Outline - American Society for Psychoprophylaxis  
in Obstetrics - Tidewater Chapter

AMERICAN SOCIETY FOR PSYCHOPROPHYLAXIS  
IN OBSTETRICS - TIDEWATER CHAPTER

General outline for six-week course:

- Class 1 . . . Introduction  
 What is Lamaze?  
 Slides - Inside My Mom  
 Anatomy and Physiology  
 Fetal Development  
 Body Mechanics  
 Exercise  
 Relaxation
- Class 2 . . . Nutrition  
 Discomforts of Pregnancy  
 Signs of Labor  
 Danger Signs  
 Overview of Labor  
 Timing Contractions  
 Early Active Stage Labor  
 Exercise  
 Relaxation  
 Slow-Paced Breathing  
 Effleurage
- Class 3 . . . True versus False Labor  
 Active Labor  
 Back Labor  
 Birth Plan  
 Ruptured Membranes  
 Inductions  
 Fetal Monitor  
 Medication  
 Film - Have a Healthy Baby  
 Relaxation  
 Modified Breathing  
 Hyperventilation
- Class 4 . . . Transition  
 Patterned Breathing  
 Stage 2/Birth  
 Pushing/Blowing  
 Episiotomy  
 Forceps/Vacuum Extracts  
 Stage 3/Placenta  
 Infant Procedures  
 Bonding  
 Recovery  
 Relaxation

- Class 5 . . . Cesarean Birth  
Breast and Bottle Feeding  
Admission Procedures  
Film - Saturday's Children
- Class 6 . . . Emergency Birth  
Postpartum/Blues/Exercise  
The Newborn  
Birth Control  
Mock Labor



APPENDIX J

Permission Letter from Dr. Mercer to Use  
The Marut and Mercer Questionnaire Measuring Attitudes  
About Labor and Delivery Experience

School of Nursing  
Department of Family Health  
Care Nursing  
Room N411 Y  
San Francisco California 94143  
(415) 866-4868

University of California, San Francisco . A Health Sciences Campus



October 17, 1985

Linda C. Aleksa

Dear Mrs. Aleksa:

You have permission to use the Marut and Mercer Questionnaire Measuring Attitudes About Labor and Delivery Experiences in your research for your dissertation. I look forward to receiving an abstract of the study findings.

All best wishes in your research.

Sincerely,

Ramona T. Mercer, RN, PhD, FAAN  
Professor

APPENDIX K  
Field-Test Directions

CODE # \_\_\_\_\_

## FIELD-TEST DIRECTIONS

Thank you for participating in this field test of the questionnaire to be used in data collection of a research study to assess parents' perception of their birth experience. Your assistance with this field test will help assure that the questionnaire develops the data needed for this study.

The questionnaire is designed to accomplish five objectives:

1. It will collect information about the perceptions parents have regarding their pending delivery after completing classes in prepared childbirth.
2. It will collect information about the perceptions parents have regarding their pending delivery without having participated in a course in prepared childbirth.
3. It will collect information about the perceptions parents have regarding their birth experience.
4. It will collect data to aid in identifying differences in perception of birth experience between vaginal and cesarean birth parents.
5. It will collect information in aiding in identifying differences in perception of parents birth experience between those prepared for childbirth and those non-prepared.

I am requesting that you evaluate the questionnaire with particular attention on the following areas. Please circle your response.

- |    |  |     |    |
|----|--|-----|----|
| 1. | Are the directions to the questionnaire clearly stated and understood?                             | Yes | No |
| 2. | Are the questions stated so they are clearly understood?   | Yes | No |
| 3. | Are the questions relevant to current teaching taking place during childbirth preparation classes? | Yes | No |

- |    |  |     |    |
|----|--|-----|----|
| 4. | Are the questions stated so as to elicit an accurate and realistic response? | Yes | No |
| 5. | Are the questions stated so as to elicit realistic expectations?             | Yes | No |
| 6. | Are the questions stated so as not to embarrass any individual respondents?  | Yes | No |
| 7. | In general, are the questions designed to fulfill the five objectives?       | Yes | No |

Please place any comments you wish to make on the reverse side of the page. If you answer "No" to a question, please indicate your reason. Thank you for assisting in this field test.

APPENDIX L

Letter of Introduction to Physicians  
with Attached Consent Form

[Date]

[Address]

Dear Dr. [Name]:

I am a doctoral candidate at Virginia Polytechnic Institute and am in the process of collecting data for my dissertation. The study will serve two purposes:

1. To compare effects of childbirth preparation and type of delivery on parents' attitudes of their labor and delivery experience. The childbirth preparation will have three levels, American Society for Psychoprophylaxis in Obstetrics (A.S.P.O.), Childbirth Education Association (C.E.A.), and non-prepared. The types of delivery looked at will be cesarean and vaginal births.
2. Document the administration of a quasi-experimental research study across two types of institutional settings are hospitals and physicians' offices. The two locations are Tidewater, Virginia and Northern Virginia. Both of these locations are defined by the Metropolitan Statistical area. This will be accomplished by maintaining a research administration log.

This study has been approved through research protocol of all participating hospitals. I am contacting you to request your permission to access the hospital chart of any patients you have that has volunteered to participate in the study. Please refer to the enclosed sheet. As the enclosed sheet indicates, the participating patients would have already signed a consent and given their permission to access their hospital chart.

I would appreciate your signing this enclosed sheet and returning it to me in the enclosed self-addressed stamped envelope. This would then apply to any patient you have throughout the duration of the study, to eliminate the need of my contacting you each time you have a participating patient. In other words, so I won't keep annoying you and being a pest.

I would also like to request your cooperation in helping me obtain the control group (non-prepared parents) for the study. If you have office patients that do not attend childbirth classes, I would appreciate the opportunity to meet with you personally in order to discuss the study in more detail. Please contact me at your convenience in regard to the control group.

Thank you,

Linda C. Aleksa, R.N., M.S.

Enclosure



To Whom It May Concern:

I (We) have been notified by Linda C. Aleksa, R.N., M.S. that I (we) will have patients who have volunteered to participate in Mrs. Aleksa's dissertation study. This letter is to advise that I (we) grant permission to Mrs. Aleksa to access the hospital chart of any of my (our) patients who have volunteered to participate in her dissertation study.

It is my (our) understanding with Mrs. Aleksa that the patients would have already signed a consent form to participate and would have given their permission to access their hospital chart. I (We) also understand from Mrs. Aleksa that all participating hospitals' research protocol has been cleared.

Thank you,

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document. Page 1 of 2**

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removed from the scanned  
document. Page 2 of 2**