

THE EFFECT OF CHILDBIRTH EDUCATION CLASSES ON
PARENTAL VALUES AND HEALTH LOCUS
OF CONTROL

A DISSERTATION
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BY
GLYNIS JOHNS LAING, B.S.N., M.A.

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CHAPTER I

ORIENTATION TO THE STUDY

Many technological changes in the past 50 years have made life safer for newborns. Better nutrition and housing as well as improved obstetrical and pediatric care have lowered the infant mortality rate to 12% of what it was during the first 20 years of this century. In the United States, the leading cause of infant mortality is low infant birth weight. Many maternal factors are associated with low infant birth weight; these factors include poor nutrition, smoking, alcohol and drug abuse, age, socioeconomic background, and lack of prenatal care (U. S. Printing Office, 1979).

Pregnancy is a period of increased emotional receptiveness that enables the individual to look at herself, to learn about her baby, and to change her health behavior. Most mothers, if they have specific information, are willing to change their health behaviors to those that will be most beneficial to their baby. Childbirth and parenting education has been recognized as a resource which can lead to better informed mothers who have the knowledge, skills, coping abilities, confidence, and motivation to positively

affect their childbearing outcomes (Green, Kreuter, Deeds, & Partridge, 1980).

Investigations have been conducted in order to ascertain the effectiveness of childbirth and parenting education. Most of this research has dealt with the medical benefits of preparation such as shorter labor, fewer complications, reduced rate of surgical intervention, and decreased need for medication by the mother (Laird & Hogan, 1956; Miller, Flannery, & Bell, 1952; Thoms & Wyatt, 1951). Few studies have emphasized the psychological benefits of preparation with the exception of some carefully designed studies which were conducted on European women (Chertok, 1969; St. Van Eps, 1955). Because of cultural differences, results from these studies suggest that findings for European women can not necessarily be applied to American women (Contis & Lind, 1967; Verkouw, 1969).

Purpose of the Study

The purpose of this study was to determine the effect of childbirth education classes on parental values and health locus of control.

Statement of the Problem

This study utilized the Value Survey (Wallston, 1983) and the Multidimensional Health Locus of Control Scales

(Wallston, Wallston, & DeVellis, 1978) to assess the effect of childbirth education classes on 40 pregnant women and their husbands. The classes were taught by childbirth education instructors in the Denton, Texas area during March and April, 1983.

Using a table of random numbers, 40 pregnant couples were randomly selected from the approximately 50 couples attending, or planning to attend, childbirth education classes in the Denton, Texas area. The subjects were randomly placed into four groups of 20 each. Group I consisted of 20 pregnant women. Group II consisted of the husbands of the Group I women. These two experimental groups received childbirth education classes together. Group III consisted of 20 pregnant women and Group IV consisted of the husbands of the women in Group III. Groups III and IV served as control groups and did not receive instruction. The mean value scores of the experimental groups were compared to the mean value scores of the control groups by use of the Spearman rank correlation coefficient. A 2 x 2 multivariate analysis was used to compare the locus of control scores of the experimental groups to the locus of control scores of the control groups. A conclusion was drawn concerning the effect of childbirth education classes on parental values and health locus of control.

Hypotheses

The hypotheses which were tested at the .05 level of significance are as follows:

1. There will be no significant difference between the values of women who receive childbirth education classes and women who do not receive childbirth education classes.

2. There will be no significant difference between the values of men who receive childbirth education classes and men who do not receive childbirth education classes.

3. There will be no significant difference between the internal health locus of control of women who receive childbirth education classes and women who do not receive childbirth education classes.

4. There will be no significant difference between the internal health locus of control of men who receive childbirth education classes and men who do not receive childbirth education classes.

5. There will be no significant difference between the powerful others health locus of control of women who receive childbirth education classes and women who do not receive childbirth education classes.

6. There will be no significant difference between the powerful others health locus of control of men who

receive childbirth education classes and men who do not receive childbirth education classes.

7. There will be no significant difference between the chance health locus of control of women who receive childbirth education classes and women who do not receive childbirth education classes.

8. There will be no significant difference between the chance health locus of control of men who receive childbirth education classes and men who do not receive childbirth education classes.

Delimitations

The female population was delimited to:

1. Subjects currently attending, or planning to attend, childbirth education classes.
2. Subjects who were experiencing a normal pregnancy.
3. Subjects who anticipated delivering a healthy, full-term infant.
4. Subjects who were in the third trimester of pregnancy.
5. Subjects who were experiencing their first birth.
6. Subjects who were at least 18 years of age.
7. Subjects who could read, write, and speak English.
8. Subjects who were willing to take part in the study.

The male population was delimited to:

1. Subjects currently attending, or planning to attend, childbirth education classes.
2. Subjects who were husbands of the pregnant women.
3. Subjects who were at least 18 years of age.
4. Subjects who could read, write, and speak English.
5. Subjects who were willing to take part in the study.

Limitations

The study was limited by the following factors:

1. Differing life experiences of the subjects.
2. Differing experiences and attitudes of the subjects about pregnancy, labor, and delivery.
3. The cooperation of the involved subjects.
4. The truthfulness of the subjects in answering the questionnaire.
5. The validity of the instruments as applied to this population.
6. The degree to which one question influences the answer of another question.
7. The treatment of ordinal data with parametric statistics.

Assumptions

For the purpose of this study, the following assumptions were made:

1. Values can be measured.
2. Values can be influenced by experience.
3. Health locus of control can be measured.
4. Health locus of control can be influenced by experience.
5. People can accurately report their perceptions.

Definition of Terms

For the purpose of clarification, the following definitions of terms were established for use in this study:

1. Childbirth Education Classes. Childbirth education classes consist of formal instruction designed to inform couples about pregnancy and the childbearing process. They are generally referred to as preparation classes.

2. Values. Values are the principles, standards, and qualities considered important to one's life.

3. Internal Health Locus of Control. Internal health locus of control is an individual's perception that an event is contingent upon his/her own behavior or relatively permanent characteristics (Rotter, 1966).

4. External Health Locus of Control. External health locus of control is an individual's perception that an event follows some action of his/her own but is not entirely contingent upon his/her own actions. In our culture the reinforcement is then perceived as the result of luck, chance, powerful others, or because of the great complexity of the forces surrounding him or her (Rotter, 1966).

5. Chance Health Locus of Control. Chance health locus of control, a dimension of external health locus of control, is an individual's perception that his/her health is influenced by fate or luck (Levenson, 1974).

6. Powerful Others Health Locus of Control. Powerful others health locus of control, a dimension of external health locus of control, is the individual's perception that his/her health is controlled by authority figures or spiritual beings (Levenson, 1974).

CHAPTER II

SURVEY OF THE RELATED LITERATURE

A comprehensive review of available research studies indicated that this study did not specifically duplicate other known investigations. Some studies cited were done in the 1950s and 1960s and did not always include detailed descriptions of significant factors. Those described in this chapter include studies of childbirth education and studies of health locus of control.

Studies of Childbirth Education

Thoms and Wyatt (1951) conducted a descriptive study with Grace-New Haven Community Hospital and Yale University. One thousand women were given educational classes on the physical and psychological features of childbirth. The classes consisted of four talks on pregnancy, labor, the newborn, and parenthood. In addition, four exercise classes were conducted. The classes were taught during the subjects' third trimester of pregnancy by physicians and nurses. The study, which was conducted without a control group, showed that support during active labor was the most important single factor in the program. The study was significant from its progressive viewpoint because the

husband remained with the woman during labor and rooming-in was available.

Miller, Flannery, and Bell (1952) conducted a study on childbirth education from January 1, 1951 to November 1, 1951 at Grace Hospital in Cedar Rapids, Iowa. The study included 285 multiparas and 165 primiparas. An education program was conducted by one nurse who presented four two-hour classes covering exercises, education, and relaxation. This procedure differed from that used by Thoms and Wyatt since one nurse presented all of the class work and gave all support during labor. Also, all deliveries were made by one obstetrical practice. The study showed that the total number of hours in labor was greatly reduced, that morbidity was greatly lessened in mothers and babies, deliveries were less complicated, the average loss of blood was much less, and support during labor by properly trained doctors or nurses made the program successful. The researchers believed that the few people who criticized the method had not given it a fair trial.

Thoms and Karlovsky (1954) conducted a second descriptive study at Grace-New Haven Community Hospital. They reviewed 2,000 deliveries for type of client, parity, length of labor, duration of stages of labor, type of delivery, analgesia and anesthesia, results for the infant,

infant deaths, and blood loss. The researchers were convinced that with their program they had greatly lessened the number of depressed infants at birth, decreased the length of labor, had fewer operative deliveries, had less blood loss, a more smooth convalescence, and happier mothers. They continued to promote educational preparation for childbirth and increased personal attention during labor.

Dick-Read's philosophy was used by St. Van Eps (1955) in conducting a study in the Netherlands. Ninety-seven women were given 2 to 3 hours of instruction by a physician who emphasized that labor was a normal, natural process. A second group of 335 women received the same lectures plus 10 lectures with a physiotherapist and Dick-Read Instruction. A control group of 368 women received no instruction. None of the women received analgesia or anesthesia. The researcher judged that the extensive training period produced good or excellent results in 95% of the women in first and second stage labor.

In 1956, Laird and Hogan conducted a study at Sloane Hospital for women in which they compared data from 249 clinic and private patients who requested and received childbirth preparation classes with 227 clinic patients who preferred not to take classes although they were

invited to attend. The investigators found that the length of labor was approximately the same for both groups. There were more spontaneous deliveries, less predelivery medication was necessary, and little or no anesthesia was required in the prepared group. The investigators concluded that the program was of benefit in the general preparation of the patient which manifested itself in less anxiety and more intelligent cooperation.

Davis and Morrone (1962) reported a study conducted at Yale University in which the intent was to replicate the findings of Thoms and Karlovsky (1954). The primary focuses were on the effect of childbirth education classes and the extra support of obstetric research nurses during labor and delivery. The study compared four groups of women: 320 subjects who chose classes and received support, 58 subjects who chose classes but received no support, 85 subjects who did not choose classes but did receive support, and 23 subjects who did not choose classes and received no support.

In the study no differences were found in the duration of any part of labor, no differences in the incidence of elective or indicated forceps, and no differences in the use of anesthesia. The investigators did find a number of demographic differences between the prepared and

unprepared groups. Those who elected preparation were older, better educated, married to men in a higher socioeconomic group, and more positive about their pregnancies than those who did not elect preparation. They were also less likely to exhibit anxiety during pregnancy, were more likely to have made plans for their babies early in pregnancy, were more likely to plan to breast-feed, and were less likely to smoke than subjects in the unprepared groups. Davis and Morrone concluded that any evident effects of childbirth preparation were more likely to be related to differences in the type of people who elect classes rather than to the effects of the preparation..

Tanzer (1967) conducted a study at Brandeis University in which data from 41 gravidas were analyzed. In the study two groups of women were compared; one group using the psychoprophylactic method of natural childbirth and the other not using natural childbirth. Tanzer found that gravidas who received childbirth preparation showed a more positive attitude toward pregnancy after they began classes, reported less pain during labor and delivery, and received less medication during labor and delivery. The husband's presence at delivery was strongly associated with the woman's feelings of rapture and more positive perceptions of the self and the world during childbirth.

Huttel, Mitchell, Fisher, and Meyer (1972) conducted a study in Germany of 72 primiparas who were divided into two groups. The experimental group of 31 women received five lessons in psychoprophylaxis in childbirth. The control group of 41 women received no instruction. The deliveries of the experimental group were compared with the control group's deliveries. Although the groups did not significantly differ in medical or socioeconomic variables, anxiety, extraversion, or neuroticism scores, the experimental group was older and had a higher occupational status. The experimental women demanded less medication and were judged to be in better self-control.

In Rochester, New York, Zax, Sameroff, and Farnum (1975) investigated the birth experiences of 70 primiparas and 48 multiparas who elected a childbirth preparation course, and a group of 41 multiparas who did not elect to take the childbirth education course. The investigators found that women in the prepared groups received less medication than those in the unprepared control group. Gravidas with childbirth preparation received general and local anesthesia less often than the unprepared control group.

A survey was conducted by Doering and Entwisle (1975) at Johns Hopkins University of 269 married, postpartum

women. Within 9 weeks following childbirth, the mothers were interviewed to determine the effects of preparation for labor and delivery on their perceptions of childbirth and their babies.

A trained group of 132 women who had taken Lamaze method classes were compared to a group of 137 women who did not take Lamaze classes. The investigators did not find differences between the two groups in age, parity, socioeconomic status, or education.

Awareness at delivery was based on the women's reports of the type of medication they received for the second stage of labor. Attitude toward childbirth and the reaction to the baby were based on the mother's verbal description of her delivery and her first two encounters with her infant.

The investigators found that Lamaze training was related to the level of awareness at delivery. An association between awareness and positive attitudes toward childbirth immediately postpartum was found. In addition, a significant relationship existed between awareness at delivery and positive reactions to the newborn. The investigators concluded that the more preparation a woman had, the more aware she was at delivery. Awareness was

strongly associated with positive reactions to the birth and her attitude toward the newborn.

Charles, Norr, Block, Meyering, and Meyers (1978) reviewed the medical records, conducted personal interviews, and gave self-administered attitudinal and socioeconomic questionnaires to 249 women in a large metropolitan hospital. All data were obtained 1 to 3 days postpartum. The investigators found psychoprophylactic preparation was not related to any obstetric differences except for lower levels of anesthesia by both primiparas and multiparas. Preparation was significantly related to lower levels of pain and higher levels of enjoyment during childbirth. Psychological benefits of preparation did not diminish when controlled for parity, socioeconomic status, and psychological characteristics.

Halstead and Fredrickson (1978) conducted a study in Spokane, Washington to demonstrate and evaluate the effects of structured prenatal education on the outcome of labor. Their course had seven 2-hour classes taught during the last trimester of pregnancy. Their sample of 201 women consisted of 96 women who received less than 5 hours of education and 105 women who received more than 5 hours of education. They concluded that more than 5 hours of structured prenatal education had a positive

impact on the length of labor, length of hospital stay, and the health and alertness of the infant.

A descriptive study by Cave (1978) was conducted to determine the social characteristics of childbirth education users. The study, which was conducted in Erie County, New York in 1973, reviewed 2,302 patients admitted to 11 hospitals. The retrospective review of hospital records compared natural childbirth users to nonadopters of natural childbirth. Nonadopters were defined as patients who had received a local, spinal, or general anesthesia. The investigator concluded that patients using childbirth education classes tended to be older, better educated, and had a higher income and social class.

Zimmerman-Tansella, Dolcetta, Azzini, Zacche, Bertagni, Siani, and Tansella (1979) conducted a study at the Obstetric University Clinic of Verona, Italy. The purpose of the study was to determine the effects of Respiratory Autogenic Training (RAT) for childbirth preparation on relaxation and anxiety during the course and on pain and behavior during delivery. The double blind study assigned 14 women to RAT and 20 women to a traditional psychoprophylactic course (TPP). Although both courses had similar outcomes, RAT women reported less anxiety before entering the labor ward and less pain during labor. Shorter expulsion time occurred in the RAT group.

Whitley (1979) conducted a survey of the social characteristics of 19 prepared military couples attending hospital prenatal classes and 92 unprepared military couples attending hospital prenatal classes. The study showed that the prepared couples came from a higher socioeconomic level, tended to be better educated, older, nulliparas, and they planned to breast-feed. The researcher discussed conflict between prepared and unprepared couples when couples were required to attend hospital sponsored childbirth education classes. Suggestions for teaching techniques to relieve some of the friction were discussed.

Hott (1980) conducted a study at Adelphi University which compared 34 primipara couples with Lamaze classes who shared delivery to 13 primipara couples with Lamaze classes who did not share delivery because of Cesarean sections. The investigator found that couples who shared delivery perceived themselves and various ideal concepts higher on the Osgood Semantic Differential than did couples who did not share delivery. In addition, husbands sharing delivery demonstrated significant increases in the activity dimension for self whereas wives not sharing delivery showed a significant increase in the potency for the ideal women.

A study was conducted by Doohar (1980) to describe the effect of the Lamaze method of childbirth on marital adjustment and feelings of crisis experienced by new parents during the postpartum period. The 10 experimental couples received Lamaze classes, whereas the 10 control couples received no instruction. The study showed that postbirth marital adjustment scores were significantly less for the experimental group. In addition, stress scores significantly increased after birth for experimental husbands, whereas they significantly increased after birth for both control husbands and wives.

Astbury (1980) conducted a study at Queen Victoria Medical Centre, Melbourne, Australia to determine the effectiveness of antenatal education and experimental treatments during labor on maternal anxiety. Half of the 90 women attended childbirth education classes. The other half did not attend classes. When the subjects entered the hospital in labor, they were randomly assigned to one of three treatment groups. The music group listened to popular music for as long as they desired. The information group listened to an 8-minute taped lecture explaining the equipment in the room and the physical processes of labor. The control group received standard care during labor. The prospective study of primigravidaes showed that

significant changes in state and trait anxiety occurred from late pregnancy to the postpartum period. This supported the psychoanalytic notion that childbirth is a psychological crisis. Neither attendance at childbirth education classes nor experimental treatments administered during labor significantly reduced maternal anxiety.

A study was conducted at Grady Memorial Hospital in Atlanta by Zacharias (1981) to determine if childbirth education classes influenced attitudes toward the childbirth experience in high-risk, medically indigent women. The questionnaire study showed that the 20 experimental subjects who completed childbirth education classes had a more positive attitude toward childbirth than the 30 control subjects who had only labor and delivery classes given during clinic hours.

Masterpasqua (1982) conducted a study on three groups of Black and Hispanic, inner-city, poverty-level women in Philadelphia. The study was designed to determine if childbirth education classes increased the mother's early maternal perceptions and behaviors. The experimental group consisted of 30 pregnant women who attended a childbirth education course in the prenatal clinic. One control group consisted of 30 pregnant women who attended the prenatal clinic during the previous year when childbirth education

classes were not available. A second control group consisted of 30 pregnant women who attended the clinic at the same time as the experimental group but chose not to attend childbirth education classes. The study showed that there was no difference among the three groups for perinatal complications or maternal behaviors during feedings. A significant difference was found among the groups in the mother's perception of the infant. The investigator concluded that the more positive expectations by the mother minimized the infant's risk of developing psychiatric problems.

Worthington, Martin, and Shumate (1982) studied 104 volunteer nulliparous undergraduate psychology students at a large urban university. They investigated the coping strategies taught in childbirth education classes by having the subjects immerse their hands in ice water. They found that structured breathing was more effective than normal breathing, effleurage was less helpful than no effleurage, practice under stress was better than imagined practice or no practice, structured breathing with attention focal points was better than normal breathing, and coaching was better than no coaching. The combination of structured breathing, attention focal points, and coaching was the strongest coping strategy.

Studies of Health Locus of Control

James, Woodruff, and Werner (1965) conducted a study on 272 females and 185 male undergraduate students at Northern Illinois University 1 week after the release of the Surgeon General's report on smoking. Results indicated that both male and female smokers were significantly more externally controlled than were nonsmokers; smokers who were convinced by the evidence in the report had lower external control scores than those who were not convinced; and among males, those who stopped smoking following the report were more internally oriented than those who continued smoking. The investigators concluded that the internal-external dimension might be an important personality variable in relation to smoking behavior.

MacDonald (1970) conducted a study of 212 undergraduate women at West Virginia University which related locus of control to the practice of birth control. Although the study found engagement in premarital coitus was not related to locus of control, 62% of unmarried women classified as "internal subjects" reported that they practiced some form of birth control. In contrast, only 37% of unmarried women classified as "external subjects" used some method of contraception.

Oliver (1972) conducted a study of 147 subjects who were grouped according to their status as prenatal or postpartum subjects, non-takers or takers of Lamaze training, and primiparas or multiparas. The purpose of the research was to study expectations of and experiences during childbirth as functions of a woman's personality. The hypothesis that the expectation for and recalled experience of personal control, mastery and coping during childbirth was negatively correlated with I-E Scale scores was rejected. Also, the hypothesis that the taking of Lamaze training was negatively correlated with I-E Scale scores was rejected. The researcher concluded that personality, demographic, historical, situational, and contextual variables have relative importance to expectations about experiences and to actual experiences during the events of labor and delivery. The researcher also concluded that the taking of Lamaze training appeared to be the most potent variable in regard to expectancies for and experience of personal control, mastery, and coping during childbirth.

Levenson (1973) conducted a study in two geographical units of a state mental hospital using functionally psychotic and neurotic individuals. Ninety-five males and 70 females were administered three Likert scales at

monthly intervals to measure different aspects of locus of control. At the initial testing the patients perceived significantly more control by powerful others and chance forces than normal subjects. Psychotics scored higher than neurotics on the same scales. During the first month of hospitalization, patients became more internal in their orientation. Initial scale scores were not significantly different from those obtained before discharge.

Wallston and Maides (1976) conducted a study with 44 male and 44 female college students who participated in order to fulfill a requirement in introductory psychology courses. The investigators tested the hypotheses that health-related information seeking was a joint function of a person's locus of control beliefs and the value placed on health. The researchers found that "internal subjects" who valued health highly relative to other terminal values chose more pamphlets about a particular health condition than did internal-low health value subjects or "externals" regardless of their health values.

A study was conducted by Windwer (1977) to determine if there was a relationship among locus of control, social desirability, and choice of psychoprophylaxis (PPM). Ninety-eight middle class nulliparous couples from the New York City area were studied in the seventh or eighth

month of the wife's pregnancy. Windwer hypothesized that internal locus of control and low social desirability would correlate significantly with the choice of PPM by husbands and wives; that externally controlled wives who participated in PPM would have more internally controlled husbands than externally controlled wives who did not participate; and that locus of control and social desirability, when taken together, would be better predictors of choice of PPM than either taken separately. Windwer found that locus of control was not related to choosing a psychoprophylaxis method. The investigator speculated that the instrument, Rotter's I-E Scale, did not measure expectancies of control in specific situations such as childbirth.

In 1978, Baughman conducted a study of 158 clerical workers in Cincinnati. The study was designed to investigate the relationship between health locus of control and value placed on health to health status and behavior. The researcher found that years of schooling, age, chance health locus of control, and internal health locus of control were the most significant variables in predicting scores on health status and health behavior. More years of schooling and an older age were correlated with both desirable and undesirable health behavior ($r = .89$). However, high scores on chance health locus of control

were correlated with undesirable health behavior ($\underline{r} = .75$) and high scores on internal health locus of control were correlated with desirable health behaviors ($\underline{r} = .83$).

Tillman (1978) conducted a descriptive study of 95 homebirth and 150 hospital birth mothers in New England. One of the variables considered was health locus of control. The investigator found no significant difference between health locus of control for the two groups. In addition, no significant difference existed between the two groups in relation to ranking health on the Value Survey. A significantly greater number of homebirth subjects ranked freedom highly on the Value Survey.

Lowenstein (1979) conducted a descriptive-comparative study to identify the psychological and social determinants of a pregnant woman's reported health maintenance behaviors. Forty-seven primigravidaes from a prenatal clinic in northeast Pennsylvania participated in the study. All were in the second or third trimester of pregnancy and of a low socio-economic status. The investigator concluded that there was no relationship between health locus of control and health maintenance behaviors. The investigator did find that unmarried primigravidaes had a higher tendency toward beliefs of chance locus of control than married primigravidaes.

A study was conducted by McCusker and Morrow (1979) in two suburban Rochester, New York school districts in which a cancer-detection program was evaluated. The experimental school district included 241 teachers, administrators, and staff who viewed a videotape on prevention and early detection of cancer and completed a risk-factor analysis. The 302 teachers, administrators, and staff of the control school district received no instruction.

Approximately 1 month later, experimental subjects were informed of their risk status and were advised of appropriate preventive behaviors. Three months after the program, control and experimental subjects received follow-up questionnaires on specific health-related behaviors they had begun since the program.

The results of this study showed that health locus of control was related to certain health beliefs. No relationship was found between health locus of control and any preventive health behaviors.

Hallal (1982) conducted a descriptive-correlational study designed to determine if there were differences in the health beliefs, health locus of control, and self-concept of adult women who practice breast self-examination as compared to those women who do not. The study of 207 adult females revealed there were differences between the

practicer and nonpracticer groups in terms of health beliefs and higher self-concept levels. Positive feelings about oneself were predictive of locus of reinforcement for behavior and perceived benefits of protective action. Practicers of breast self-examination tended to be less inclined to have a health locus of control that depended upon powerful others.

CHAPTER III

PROCEDURES FOLLOWED IN THE DEVELOPMENT OF THE STUDY

The purpose of this study was to determine the effect of childbirth education classes on parental values and health locus of control. In this chapter, the procedures developed for this study are described under the following headings: (a) Sources of Information, (b) Preliminary Procedures, (c) Selection and Description of the Instruments, (d) Selection and Description of the Subjects, (e) Collection of the Data, (f) Organization and Treatment of the Data, and (g) Preparation of the Final Written Report.

Sources of Information

Human and documentary sources were used in the development of this study. The human sources included a sample of 40 pregnant women and their husbands attending, or planning to attend, childbirth education classes during March and April, 1983. Other human sources utilized were selected authorities in the fields of health education, medicine, nursing, psychology, and community health. The documentary sources consisted of books, periodicals,

theses, dissertations, computer searches, and other reports of research related to aspects of the study.

Preliminary Procedures

Prior to the actual collection of data, certain preliminary procedures were necessary. A tentative outline was developed and presented to members of the dissertation committee. The outline was revised and a prospectus of the study was filed in the Office of the Provost of the Graduate School. Application was made to the Human Subjects Review Committee for permission to conduct the study. In addition, permission was obtained from the childbirth education instructors to use their clients in the study. Copies of the letters granting permission are shown in Appendix A.

Selection and Description of the Instruments

Criteria were established for the selection of a test which would measure values. The criteria for the selection of the test were: (a) reasonable cost of the instrument, (b) availability of the instrument, and (c) administrative feasibility. Upon the basis of the criteria established, the Value Survey was selected as the specific instrument to be used in the collection of data. A copy of the instrument is included in Appendix B.

The Value Survey is an instrument designed to determine the rank order of the principles and standards a person considers important to his or her life. Developed in 1974 by Wallston of Vanderbilt University, it was constructed by choosing nine of Rokeach's 18 terminal values and adding "health" as a tenth value. Wallston selected those values which appeared to him to be most likely to surpass "health" in rank.

There is no reliability information available for the Value Survey. Because it uses rank ordering, there can be no estimate of internal consistency. No test-retest has been given to check its stability.

Construct validity of the Value Survey has been established by studies published in the literature which have used the instrument and which have found that it operates as one would theoretically expect. In addition, different subsamples tend to rank "health" differentially in a logical sense. Younger, healthier subjects tend to rank "health" as less important than older subjects or patients with chronic diseases.

Concurrent validity of the Value Survey has been established by the construction of a 4-item Likert scale measure of health value. The Value Survey and the Likert scale were administered to the same group of subjects.

The two scores correlated significantly with $r = .30$ to $.40$ (Wallston, 1983).

Criteria were established for the selection of a test which would measure health locus of control. The criteria for the selection of the test were: (a) acceptable norms for previously tested groups, (b) reasonable cost of the instrument, (c) availability of the instrument, and (d) administrative feasibility. Upon the basis of the criteria established, the Multidimensional Health Locus of Control Scales (M.H.L.C.S.) were selected as the second of the instruments to be used for this investigation.

The M.H.L.C.S. are instruments to determine the strength of a person's internal, chance, and powerful others health locus of control orientation. The M.H.L.C.S. have acceptable validity and reliability in determination of the level of locus of control. Concurrent and discriminant validity of the M.H.L.C.S. were established by correlating them with Levenson's I, P, and C Scales (Levenson, 1974). The intercorrelation of the M.H.L.C.S. and the Levenson I, P, and C Scales were such that each M.H.L.C.S. correlated most highly with its theoretical counterpart among Levenson's scales. Alpha reliabilities ranged from .508 to .733.

The M.H.L.C.S. were first published in 1978 by Wallston of Vanderbilt University and Wallston and DeVellis of George Peabody College for Teachers. They were developed as a multidimensional expansion of the original Health Locus of Control Scale (H.L.C.). The original H.L.C. scale was developed in 1976 by Wallston, Wallston, Kaplan, and Maides as an unidimensional measure of people's beliefs that their health is or is not determined by their behavior. New forms were developed to answer the criticism that locus of control was not an unidimensional concept. One additional purpose of the new scales was to create equivalent forms of the health locus of control scales.

The M.H.L.C.S. consist of an 18-item multidimensional Likert-type scale which measures health specific expectancies regarding locus of control. Forms A and B have mean scores which are nearly identical. The alpha reliability for the combined forms range from .830 to .859. Using the Dale-Chall formula, the reading level was calculated to be fifth to sixth grade level (Dale & Chall, 1948). Because subjects are encouraged not to spend too much time on any one item, most people are able to complete the instrument in less than 10 minutes (Wallston, Wallston, & DeVellis, 1978). Form A was used in this study. A copy of it is located in Appendix B.

A questionnaire was designed to obtain demographic information on age, highest level of formal education attained, and income earned during the previous year (see Appendix B). Anonymity of all subjects was ensured by a numerical code.

Selection and Description of the Subjects

Criteria were established for the selection of subjects in the study. The female subjects were delimited to those who were:

1. Currently attending, or planning to attend, childbirth education classes.
2. Experiencing a normal pregnancy.
3. Anticipating delivering a healthy, full-term infant.
4. Currently in the third trimester of pregnancy.
5. Experiencing their first birth.
6. At least 18 years of age.
7. Able to read, write, and speak English.
8. Willing to take part in the study.

The male subjects were delimited to those who were:

1. The husband of the pregnant woman.
2. Currently attending, or planning to attend, childbirth education classes with his wife.
3. At least 18 years of age.

4. Able to read, write, and speak English.
5. Willing to take part in the study.

Collection of the Data

The childbirth education classes were conducted once a week for 6 consecutive weeks. The classes were taught by three certified Lamaze instructors. Each lecture-discussion and exercise class lasted approximately 2 1/2 hours and included a question and answer period at the end. Visual aids, demonstrations, handouts, and practice were used as appropriate. A course outline is shown in Appendix C.

At their first childbirth education class meeting, all eligible experimental subjects were approached by the investigator and asked to participate in the study. All subjects agreed to participate. The fifth class period was selected for testing because the sixth class consisted of a labor review and tended to suffer a high mortality rate because of deliveries. At the end of the fifth class period, each experimental subject was given an envelope containing one Value Survey, one Form A of the M.H.L.C.S., the questionnaire, and a written consent form. Each subject completed the instruments and returned the envelope to the investigator. To equate the numbers in the groups, a table of random numbers was used to discard three couples.

The remaining 20 couples were used as subjects in the study.

Control subjects were obtained from registration lists for classes to be held the following month. The couples were initially approached by the childbirth education instructors and asked to participate in the study. All subjects agreed. The investigator contacted the control couples by letter requesting their participation in the study (see Appendix D). The instruments were included with the request letter. Most of the control couples completed the instruments and returned them by mail to the investigator. Because of concern about the number of control subjects, ten additional control subjects were obtained by a volunteer who solicited their help in the study. Reminder notices were sent to encourage return of the instruments. The 20 participating couples were used as subjects in the study.

The subjects in the two experimental groups attended childbirth education classes together. The subjects in the two control groups received childbirth education classes after the completion of this study.

Organization and Treatment of the Data

A Spearman rank correlation coefficient was conducted on the mean rank scores of the Value Survey to determine

if significant differences existed between the groups. In addition, a 2 x 2 multivariate analysis was used to determine if significant differences existed between the groups with respect to scores obtained on the M.H.L.C.S. The independent variables included in the multivariate analysis were sex and treatment. Demographic data were used for descriptive purposes.

Preparation of the Final Written Report

The preparation of the final written report entailed writing each chapter in accordance with its topical outline and submitting the report to the members of the dissertation committee for correction and revision. A summary of the research was prepared and the findings were presented, interpreted, and discussed. The final paper included a conclusion, recommendations for further studies, the appendices, and a list of reference materials.

CHAPTER IV

PRESENTATION OF THE FINDINGS

The purpose of this chapter is to present in narrative and tabular form a discussion of the findings of this study. The purpose of the study was to determine the effect of childbirth education classes on parental values and health locus of control. The study involved 80 subjects who were currently attending, or planning to attend, childbirth education classes in the Denton, Texas area during March and April, 1983. The findings of this study are based upon data collected from these subjects.

The Value Survey and the Multidimensional Health Locus of Control Scales were administered to each individual. The data were treated statistically by a Spearman rank correlation coefficient and a 2 x 2 multivariate analysis, respectively. The .05 level of significance was used to determine if a significant difference existed among the groups. This chapter is organized under the following headings: (a) Description of the Subjects and (b) Analysis of the Data.

Description of the Subjects

Table 1 reveals the age distribution of the experimental and control groups. The ranges, means, standard deviations, and the standard errors of the mean are presented.

Table 1
Descriptive Statistics Relative to Age

| Group | <u>n</u> | <u>Range</u> (min-max) | <u>M</u> | <u>SD</u> | <u>SEM</u> |
|----------------------|----------|---------------------------|----------|-----------|------------|
| Experimental Females | 20 | 16.00 (18.00-34.00) | 25.55 | 3.71 | .83 |
| Experimental Males | 20 | 15.00 (20.00-35.00) | 27.35 | 4.25 | .95 |
| Control Females | 20 | 15.00 (19.00-34.00) | 26.55 | 3.78 | .84 |
| Control Males | 20 | 15.00 (21.00-36.00) | 28.40 | 4.24 | .95 |

The females in the experimental group ranged in age from 18 to 34 years. A mean of 25.55 years was obtained. The males in the experimental group ranged in age from 20 to 35 years. Their mean age, computed to be 27.35 years, was slightly above that of their wives. The females in the control group ranged in age from 19 to 34 years. A mean age of 26.55 years was calculated. The ages of the male

control group ranged from 21 years to 36 years. This group was also slightly older than their wives with a mean age of 28.40 years.

Table 2 depicts the last year of school completed for the experimental and control groups. The ranges, means, standard deviations, and the standard errors of the mean are presented.

Table 2
Descriptive Statistics Relative to the Last
Year of School Completed

| Group | <u>n</u> | <u>Range</u> (min-max) | <u>M</u> | <u>SD</u> | <u>SEM</u> |
|-------------------------|----------|---------------------------|----------|-----------|------------|
| Experimental Females | 20 | 7.00 (11.00-18.00) | 14.75 | 2.02 | .45 |
| Experimental Males | 20 | 8.00 (12.00-20.00) | 15.40 | 2.39 | .54 |
| Control Females | 20 | 6.00 (12.00-18.00) | 13.65 | 1.84 | .41 |
| Control Males | 20 | 9.00 (12.00-21.00) | 14.80 | 2.63 | .59 |

The number of years of school completed by the female experimental group ranged from 11 to 18 years. The mean for the female experimental group was 14.75 years of school completed. The male experimental group ranged in years of completed school from 12 to 20 years; their mean

was 15.40 years. The females in the control group ranged from 12 to 18 years of school completed. A mean of 13.65 years was computed. The years of school completed in the male control group ranged from 12 to 21 years. The group had a mean of 14.80 years of school completed.

Table 3 presents the personal income earned by the experimental and control groups. The number of subjects and the percentage of each group are also shown.

Table 3
Descriptive Statistics Relative to Personal Income

| Salary Range | Experimental Females | | Control Females | | Experimental Males | | Control Males | |
|-----------------------|-------------------------|-----|--------------------|-----|-----------------------|-----|------------------|-----|
| | <u>n</u> | % | <u>n</u> | % | <u>n</u> | % | <u>n</u> | % |
| Less than \$9,999 | 7 | 35 | 6 | 30 | 3 | 15 | 1 | 5 |
| \$10,000- \$14,999 | 7 | 35 | 10 | 50 | 5 | 25 | 2 | 10 |
| \$15,000- \$19,999 | 2 | 10 | 4 | 20 | 2 | 10 | 4 | 20 |
| \$20,000- \$24,999 | 3 | 15 | 0 | 0 | 3 | 15 | 6 | 30 |
| \$25,000 or more | 1 | 5 | 0 | 0 | 7 | 35 | 7 | 35 |
| Total | 20 | 100 | 20 | 100 | 20 | 100 | 20 | 100 |

The females in the experimental group earned an income ranging from less than \$9,999 to more than \$25,000, with 70% of the group in the lowest two categories. The males in the experimental group personally earned an income ranging from less than \$9,999 to more than \$25,000 with 35% of the group in the above \$25,000 range. The income personally earned by the female control group ranged from less than \$9,999 to \$19,999. Fifty percent of the group was in the \$10,000 to \$14,999 range. The male control group earned personal income ranging from less than \$9,999 to more than \$25,000, with 65% of the group in the upper two categories.

Analysis of the Data

An analysis of the data was conducted to determine if significant differences existed among the groups. This section is organized under the following headings: (a) Value Survey and (b) Multidimensional Health Locus of Control.

Value Survey

The scoring procedure for the Value Survey yielded ranking of 10 variables from a high of 1 to a low of 10. Subjects were asked to rank each variable, in order, from the most desired value to the least desired value. A

mean value for each variable was obtained for each of four groups in the study. Table 4 shows the mean ranks on the Value Survey for the experimental and control groups.

Table 4
Mean Ranks on the Value Survey

| | Experimental Females | Control Females | Experimental Males | Control Males |
|---------------------------------|-------------------------|--------------------|-----------------------|------------------|
| Variable | <u>n</u> = 20 | <u>n</u> = 20 | <u>n</u> = 20 | <u>n</u> = 20 |
| Comfort- able life | 6.85 | 6.75 | 6.35 | 6.80 |
| Exciting life | 7.30 | 7.75 | 6.40 | 6.70 |
| Freedom | 6.35 | 5.10 | 5.40 | 4.90 |
| Happiness | 2.70 | 3.00 | 3.50 | 3.10 |
| Health | 2.50 | 1.90 | 2.15 | 2.70 |
| Inner harmony | 4.75 | 4.05 | 4.55 | 4.95 |
| Pleasure | 6.45 | 6.65 | 7.60 | 6.85 |
| Self- respect | 3.70 | 4.50 | 4.55 | 4.25 |
| Sense of accom- plishment | 6.20 | 6.60 | 5.30 | 5.45 |
| Social recog- nition | 8.20 | 8.70 | 9.20 | 9.30 |

An analysis of Table 4 shows that the mean ranks for the experimental and control females were very similar. Health was ranked as the most desired value, with happiness ranked second by both groups. The remaining variables were ranked similarly.

The females in the experimental group ranked self-respect in the third place and inner harmony in fourth place; whereas the control females ranked them in fourth and third place, respectively. A sense of accomplishment was ranked in the fifth position by the female experimental group and freedom occupied the sixth place. The female control group ranked sense of accomplishment sixth and freedom in the fifth position.

Table 4 also shows that the mean ranks for the experimental and control males were similar to the ranks of the female groups. Health and happiness were ranked, in that order, as the most desired values. As with the female groups, the remaining variables were again ranked similarly.

The male experimental group's mean of inner harmony and self-respect tied in the third position. The male control group ranked inner harmony in the fifth position and self-respect in the third position. A sense of accomplishment and freedom was ranked by the males in the experimental group in the fifth and sixth places,

respectively. A sense of accomplishment held the sixth position for the male control group; whereas freedom was ranked fourth. A comfortable life occupied the seventh place and an exciting life held eighth place for the male experimental group; whereas they occupied the eighth and seventh place, respectively, for the male control group.

The statistical design used to test for a relationship between the 10 variables on the Value Survey was a Spearman rank correlation coefficient. The results of the Spearman rank correlation coefficient are presented in Table 5.

Table 5
Summary Table for Spearman Rank Correlation
Coefficient for Mean Values on the
Value Survey for Females
and Males

| Group | <u>r</u> | <u>df</u> | <u>t</u> | <u>p</u> |
|---|----------|-----------|----------|----------|
| Experimental Females and Control Females | .976 | 8 | 12.61 | <.001 |
| Experimental Males and Control Males | .942 | 8 | 7.96 | <.001 |

The results indicated a high positive relationship ($\underline{r} = .976$) between the experimental and control females. In addition there was a high positive relationship ($\underline{r} = .942$) between the experimental and control males.

A t -test was conducted to determine if the correlations were significant. The t -test for the experimental and control females was significant ($t = 12.61$, $df = 8$, $p = <.001$) as was the t -test for the experimental and control males ($t = 7.96$, $df = 8$, $p = <.001$).

Multidimensional Health Locus of Control Scale

The scoring procedure for the Multidimensional Health Locus of Control Scales yields three scores for each subject. The score for each subscale indicates the degree to which a person tends to be internal, powerful others, or chance oriented. Each subscale has a possible range in score from 6 to 36. A score of 6 indicates that the person is very unlikely to be oriented to that belief; whereas a score of 36 indicates that the person has a very strong orientation to that belief.

Table 6 depicts the range, mean, standard deviation, and standard error of the mean of the Internal Health Locus of Control Scale by treatment groups. Each group contained 20 subjects.

A study of Table 6 reveals that the mean score for the females in the experimental group was 26.25 with a standard deviation of 3.80; whereas the mean score for the male experimental group was 26.75 with a standard

Table 6

Range, Mean, Standard Deviation, and Standard
Error of the Mean for the Internal Health
Locus of Control Scale Scores by
Treatment Group

| Group | <u>n</u> | <u>Range</u> (min-max) | <u>M</u> | <u>SD</u> | <u>SEM</u> |
|------------------------|----------|---------------------------|----------|-----------|------------|
| Female Experimental | 20 | 14.00 (18.00-32.00) | 26.25 | 3.80 | .85 |
| Male Experimental | 20 | 13.00 (21.00-34.00) | 26.75 | 3.39 | .76 |
| Female Control | 20 | 20.00 (15.00-35.00) | 27.00 | 4.80 | 1.07 |
| Male Control | 20 | 21.00 (6.00-27.00) | 27.10 | 4.53 | 1.01 |

deviation of 3.39. The females in the control group had a computed mean of 27.00 with a standard deviation of 4.80; the mean score for the male control group was 27.10 with a standard deviation of 4.53. These scores indicated that all of the groups were similar in their orientation and tended to be internally oriented.

Table 7 presents the range, mean, standard deviation, and the standard error of the mean of the Powerful Others Health Locus of Control Scale scores by treatment groups. Each group contained 20 subjects.

Table 7

Range, Mean, Standard Deviation, and Standard
Error of the Mean for the Powerful
Others Health Locus of Control
Scale Scores by Treatment
Group

| Group | <u>n</u> | <u>Range</u> (min-max) | <u>M</u> | <u>SD</u> | <u>SEM</u> |
|------------------------|----------|---------------------------|----------|-----------|------------|
| Female Experimental | 20 | 15.00 (8.00-23.00) | 15.90 | 4.45 | .99 |
| Male Experimental | 20 | 18.00 (6.00-24.00) | 14.35 | 4.59 | 1.03 |
| Female Control | 20 | 16.00 (6.00-22.00) | 14.20 | 4.42 | .99 |
| Male Control | 20 | 20.00 (6.00-26.00) | 15.15 | 5.74 | 1.28 |

An examination of Table 7 shows that the females in the experimental group had a calculated mean score of 15.90. Their standard deviation was 4.45. The mean score for the male experimental group was 14.35. A standard deviation of 4.59 was computed. The mean score for the female control group was 14.20 with a standard deviation of 4.42; whereas the mean score for the male control group was 15.15. A standard deviation of 5.74 was obtained for this group. These scores indicated that all of the groups were again similar in their orientation and tended not to have a very strong powerful others orientation.

Table 8 shows the range, mean, standard deviation, and the standard error of the mean of the Chance Health Locus of Control Scale scores by treatment groups. Each group contained 20 subjects.

Table 8
Range, Mean, Standard Deviation, and Standard
Error of the Mean for the Chance Health
Locus of Control Scale Scores by
Treatment Group

| Group | <u>n</u> | <u>Range</u> (min-max) | <u>M</u> | <u>SD</u> | <u>SEM</u> |
|------------------------|----------|---------------------------|----------|-----------|------------|
| Female Experimental | 20 | 20.00 (6.00-26.00) | 15.35 | 5.22 | 1.17 |
| Male Experimental | 20 | 19.00 (6.00-25.00) | 16.90 | 5.04 | 1.13 |
| Female Control | 20 | 19.00 (6.00-25.00) | 15.45 | 6.25 | 1.40 |
| Male Control | 20 | 21.00 (6.00-27.00) | 16.60 | 5.48 | 1.23 |

An inspection of Table 8 discloses that the mean score for the females in the experimental group was 15.35. A standard deviation of 5.22 was obtained. The mean score for the male experimental group was computed to be 16.90 with a standard deviation of 5.04. The female control group mean score was 15.45. A standard deviation of 6.25

was obtained. The male control group had a computed mean of 16.60 with a calculated standard deviation of 5.48. As before, these scores indicated a similarity among all of the groups. All of the subjects tended to have a weak chance locus of control.

The statistical design used to test for significant differences between the groups was a 2 x 2 multivariate analysis. The independent variables included in the multivariate analysis were sex and treatment. The three subscales of the M.H.L.C.S., internal, powerful others, and chance, were the dependent variables. The results of the multivariate analysis and univariate tests are presented in Table 9.

The results show that none of the multivariate tests were significant. There was no significant overall group effect ($F = .23$, $p = .8751$) and there was no significant overall sex effect ($F = .70$, $p = .5554$). There also was no significant group by sex effect ($F = .63$, $p = .5960$). In addition, none of the univariate tests were significant.

Table 9

Summary Table for Multivariate Analysis

| Effect | Variable | Statistic | <u>F</u> | <u>df</u> | <u>p</u> |
|-------------|-----------------|----------------------------|----------|-----------|----------|
| Group | Internal | ss = 6.05 ms = 6.05 | .35 | 1, 76 | .5567 |
| | Powerful Others | ss = 4.05 ms = 4.05 | .17 | 1, 76 | .6782 |
| | Chance | ss = .20 ms = .20 | .01 | 1, 76 | .9356 |
| | Overall | T ² = .71 | .23 | 3, 74 | .8751 |
| Sex | Internal | ss = 1.80 ms = 1.80 | .10 | 1, 76 | .7483 |
| | Powerful Others | ss = 1.80 ms = 1.80 | .08 | 1, 76 | .7820 |
| | Chance | ss = 36.45 ms = 36.45 | 1.20 | 1, 76 | .2774 |
| | Overall | T ² = 2.16 | .70 | 3, 74 | .5554 |
| Group x Sex | Internal | ss = .80 ms = .80 | .05 | 1, 76 | .8306 |
| | Powerful Others | ss = 31.25 ms = 31.25 | 1.34 | 1, 76 | .2507 |
| | Chance | ss = .80 ms = .80 | .03 | 1, 76 | .8717 |
| | Overall | T ² = 1.95 | .63 | 3, 74 | .5960 |
| Error | Internal | ss = 1313.30 ms = 17.36 | | | |
| | Powerful Others | ss = 1774.10 ms = 23.34 | | | |
| | Chance | ss = 2314.10 ms = 30.45 | | | |

CHAPTER V

SUMMARY, RESULTS, DISCUSSION, CONCLUSION, AND RECOMMENDATIONS

Summary

The purpose of this study was to determine the effect of childbirth education classes on parental values and health locus of control. The study utilized the Value Survey and the Multidimensional Health Locus of Control Scales to assess the effect of childbirth education classes on 40 pregnant women and their husbands. Pertinent demographic data were also obtained from the subjects. The classes were taught by childbirth education instructors in the Denton, Texas area during March and April, 1983.

A table of random numbers was used to select 40 pregnant women and their husbands currently attending, or planning to attend, childbirth education classes. A post-test only design was used. Group I consisted of 20 pregnant women. Group II consisted of the husbands of the Group I women. These two experimental groups attended childbirth education classes together. Group III consisted of 20 pregnant women and Group IV consisted of the husbands of the women in Group III. Groups III and IV served as

control groups and did not receive instruction. Groups I and II were tested at the end of the fifth class period. Groups III and IV were tested during the same time period.

A Spearman rank correlation coefficient was conducted on the mean rank scores of the Value Survey to determine if significant differences existed between the experimental and control groups. A 2 x 2 multivariate analysis was used to compare the health locus of control scores of the experimental groups to the health locus of control scores of the control groups. No significant differences were found for the effect of childbirth education classes on parental values and health locus of control.

Results

The hypotheses of this study which were tested at the .05 level of significance were as follows:

1. There will be no significant difference between the values of women who receive childbirth education classes and women who do not receive childbirth education classes. ACCEPTED

2. There will be no significant difference between the values of men who receive childbirth education classes and men who do not receive childbirth education classes. ACCEPTED

3. There will be no significant difference between the internal health locus of control of women who receive childbirth education classes and women who do not receive childbirth education classes. ACCEPTED

4. There will be no significant difference between the internal health locus of control of men who receive childbirth education classes and men who do not receive childbirth education classes. ACCEPTED

5. There will be no significant difference between the powerful others health locus of control of women who receive childbirth education classes and women who do not receive childbirth education classes. ACCEPTED

6. There will be no significant difference between the powerful others health locus of control of men who receive childbirth education classes and men who do not receive childbirth education classes. ACCEPTED

7. There will be no significant difference between the chance health locus of control of women who receive childbirth education classes and women who do not receive childbirth education classes. ACCEPTED

8. There will be no significant difference between the chance health locus of control of men who receive childbirth education classes and men who do not receive childbirth education classes. ACCEPTED

Discussion

There were no significant differences found in the values of the groups who received childbirth education classes and those who did not receive childbirth education classes. This result may have occurred because of the prior orientation of the groups. The control groups ranked health as their first choice on the Value Survey. Both groups were similar in demographic variables and in health locus of control. Perhaps the experimental groups also perceived health as a most important value before they were exposed to the childbirth education classes. If health was already highly valued, there was no opportunity to improve the desire for health as a principle in one's life. With people who place a high value on health, it is unlikely that a class focusing on health would alter their orientation to health.

There were also no significant differences found in the health locus of control between the groups who received and did not receive childbirth education classes. These results are similar to those found in Windwer's (1977) study. He concluded that locus of control was not related to choosing a psychoprophylaxis method for childbirth. These results also agree with Tillman (1978) who found no significant difference between health locus of control for

mothers whose children were born at home and mothers whose children were born in a hospital. The studies of Windwer (1977) and Tillman (1978) evaluated a psychoprophylaxis method for childbirth and choice of location for delivery. The present study differed by directly evaluating childbirth education classes. The alternate hypothesis of this study stated that the classes would influence health locus of control.

It is possible that only "internal" people, who feel they can control their health, participate in childbirth education classes. Perhaps the "external" people, because of their belief in fate, feel that their participation in the classes is a waste of time and therefore choose not to take childbirth education classes.

Perhaps the demographics of the group influenced the study. Wallston and Wallston (1981) stated that minority and lower socioeconomic groups tend to have a more external health locus of control. The subjects in this study were well-educated, middle income primiparas. Perhaps the groups in this study felt they were already in control of their health and lives and did not need to become more internal in their orientation. The subjects in this study were demographically comparable to those in studies by Davis and Morrone (1962), Cave (1978), and Whitley (1979).

These investigators also found that the subjects tended to be older, better educated, and have a higher income and social class than persons who chose not to take childbirth education classes.

Another explanation for the lack of change because of treatment may be that values and health locus of control are not influenced by a relatively short educational experience. It is possible that values and health locus of control are so inflexible that more extensive experiences are needed before changes can occur.

Perhaps the Multidimensional Health Locus of Control Scales are not specific enough for the childbirth experience. A more sensitive instrument, specifically designed to reflect attitudes of pregnancy and childbirth, may be required to detect a possible influence of childbirth education classes.

It appears to the researcher that childbirth education classes are meeting the philosophical needs of their clients. Expectant parents do not appear to experience conflict while attending childbirth education classes which emphasize the taking control of one's life and health. As has been suggested by Wallston and Wallston (1981), this may not be true for "external" clients who may

experience discord when presented with concepts suggesting that they can positively influence their life and health.

Conclusion

Pregnant couples who participated in 15 hours of childbirth education classes manifested the same parental values and health locus of control as the pregnant couples who did not take the classes.

Recommendations

As a result of this study, the investigator recommends the following for further research:

1. Studies which include both "internal" and "external" primiparas and multiparas. By identifying and utilizing a diversity of subject orientations and experiences with pregnancy, a more accurate reflection of the effects of the treatment might be detected.
2. Studies that replicate this study using a health locus of control instrument specifically designed to reflect attitudes of pregnancy and childbirth. A more sensitive instrument may more accurately detect change.
3. Development of a childbirth education curriculum specifically designed for "external" subjects. This may help encourage a more "internal" orientation at the end of the program.

APPENDICES

APPENDIX A

PERMISSION LETTERS

TEXAS WOMAN'S UNIVERSITY
Box 22939, TWU Station
RESEARCH AND GRANTS ADMINISTRATION
DENTON, TEXAS 76204

HUMAN SUBJECTS REVIEW COMMITTEE

Name of Investigator: Gloria L. Laing Center: Denton
Address: 603 Loop 288 Apt. 43 Date: February 22, 1983
Denton, TX 76201

Dear Ms. Laing:

Your study entitled The Effect of Childbirth Education on Parental Values and Health Locus of Control

has been reviewed by a committee of the Human Subjects Review Committee and it appears to meet our requirements in regard to protection of the individual's rights.

Please be reminded that both the University and the Department of Health, Education, and Welfare regulations typically require that signatures indicating informed consent be obtained from all human subjects in your studies. These are to be filed with the Human Subjects Review Committee. Any exception to this requirement is noted below. Furthermore, according to DHEW regulations, another review by the Committee is required if your project changes.

Any special provisions pertaining to your study are noted below:

 Add to informed consent form: No medical service or compensation is provided to subjects by the University as a result of injury from participation in research.

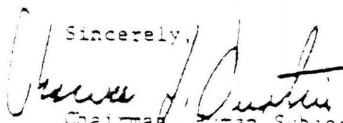
 Add to informed consent form: I UNDERSTAND THAT THE RETURN OF MY QUESTIONNAIRE CONSTITUTES MY INFORMED CONSENT TO ACT AS A SUBJECT IN THIS RESEARCH.

 The filing of signatures of subjects with the Human Subjects Review Committee is not required.

 Other:

 X No special provisions apply.

cc: Graduate School
Project Director
Director of School or
Chairman of Department

Sincerely,

Chairman, Human Subjects
Review Committee

61151 Churchill Way
Dallas, Texas 75230
March 7, 1983

Glynis Laing
603 Loop 288, Apt. H3
Denton, Texas 76201

Dear Mrs. Laing:

I am pleased to grant you permission to use my clients in your study titled "The Effect of Childbirth Education Classes on Parental Values and Health Locus of Control." Good luck with your research.

Sincerely,

Linda Altick H.C.C.E.

Linda Altick

2007 Azalea
Denton, Texas 76201
March 7, 1983

Dear Mrs. Laing:

I am pleased to grant you permission to use my clients in your study titled "The Effect of Childbirth Education Classes on Parental Values and Health Locus of Control." Good luck with your research.

Sincerely,

A handwritten signature in cursive script that reads "Joyce Heine".

Joyce Heine


902 Kings Row
Denton, Texas 76201
March 7, 1983

Glynis Laing
603 Loop 288, Apt. H3
Denton, Texas 76201

Dear Mrs. Laing:

I am pleased to grant you permission to use my clients in your study titled "The Effect of Childbirth Education Classes on Parental Values and Health Locus of Control." Good luck with your research.

Sincerely,

A handwritten signature in cursive script that reads "Joanne Rowell". The signature is written in dark ink and is positioned to the right of the word "Sincerely,".

Joanne Rowell

APPENDIX B

INSTRUMENTS USED IN THE STUDY

VALUE SURVEY

Below you will find a list of ten values listed in alphabetical order. I would like you to arrange them in order of their importance to YOU, as guiding principles in YOUR life.

Study the list carefully and pick out the one value which is the most important for you. Write the number "1" in the space to the left of the most important value. Then pick out the value which is second most important to you. Write the number "2" in the space to the left. Then continue in the same manner for the remaining values until you have included all ranks from 1 to 10. Each value would have a different rank.

I realize that some people find it difficult to distinguish the importance of some of these values. Do the best you can, but please rank all 10 of them. The end result should truly show how YOU really feel.

- _____ A COMFORTABLE LIFE (a prosperous life)
- _____ AN EXCITING LIFE (a stimulating, active life)
- _____ FREEDOM (independence, free choice)
- _____ HAPPINESS (contentedness)
- _____ HEALTH (physical and mental well-being)
- _____ INNER HARMONY (freedom from inner conflict)
- _____ PLEASURE (an enjoyable, leisurely life)
- _____ SELF-RESPECT (self-esteem)
- _____ A SENSE OF ACCOMPLISHMENT (lasting contribution)
- _____ SOCIAL RECOGNITION (respect, admiration)

MHLC

This is a questionnaire designed to determine the way in which different people view certain important health-related issues. Each item is a belief statement with which you may agree or disagree. Beside each statement is a scale which ranges from strongly disagree (1) to strongly agree (6). For each item I would like you to circle the number that represents the extent to which you disagree or agree with the statement. The more strongly you agree with a statement, then the higher will be the number your circle. The more strongly you disagree with a statement, then the lower will be the number you circle. Please make sure that you answer every item and that you circle only one number per item. This is a measure of your personal beliefs; obviously, there are no right or wrong answers.

Please answer these items carefully, but do not spend too much time on any one item. As much as you can, try to respond to each item independently. When making your choice, do not be influenced by your previous choices. It is important that you respond according to your actual beliefs and not according to how you feel you should believe or how you think I want you to believe.

| | Strongly Disagree | Moderately Disagree | Slightly Disagree | Slightly Agree | Moderately Agree | Strongly Agree |
|--|-------------------|---------------------|-------------------|----------------|------------------|----------------|
| 1. If I get sick, it is my own behavior which determines how soon I get well again. | 1 | 2 | 3 | 4 | 5 | 6 |
| 2. No matter what I do, if I am going to get sick, I will get sick. | 1 | 2 | 3 | 4 | 5 | 6 |
| 3. Having regular contact with my physician is the best way for me to avoid illness. | 1 | 2 | 3 | 4 | 5 | 6 |
| 4. Most things that affect my health happen to me by accident. | 1 | 2 | 3 | 4 | 5 | 6 |

| | Strongly Disagree | Moderately Disagree | Slightly Disagree | Slightly Agree | Moderately Agree | Strongly Agree |
|---|-------------------|---------------------|-------------------|----------------|------------------|----------------|
| 5. Whenever I don't feel well, I should consult a medically trained professional | 1 | 2 | 3 | 4 | 5 | 6 |
| 6. I am in control of my health | 1 | 2 | 3 | 4 | 5 | 6 |
| 7. My family has a lot to do with my becoming sick or staying healthy | 1 | 2 | 3 | 4 | 5 | 6 |
| 8. When I get sick I am to blame. | 1 | 2 | 3 | 4 | 5 | 6 |
| 9. Luck plays a big part in determining how soon I will recover from an illness. . . | 1 | 2 | 3 | 4 | 5 | 6 |
| 10. Health professionals control my health . . | 1 | 2 | 3 | 4 | 5 | 6 |
| 11. My good health is largely a matter of good fortune. | 1 | 2 | 3 | 4 | 5 | 6 |
| 12. The main thing which affects my health is what I myself do | 1 | 2 | 3 | 4 | 5 | 6 |
| 13. If I take care of myself, I can avoid illness. | 1 | 2 | 3 | 4 | 5 | 6 |
| 14. When I recover from an illness, it's usually because other people (for example, doctors, nurses, family, friends) have been taking good care of me. | 1 | 2 | 3 | 4 | 5 | 6 |
| 15. No matter what I do, I'm likely to get sick | 1 | 2 | 3 | 4 | 5 | 6 |
| 16. If it's meant to be, I will stay healthy. | 1 | 2 | 3 | 4 | 5 | 6 |
| 17. If I take the right actions, I can stay healthy | 1 | 2 | 3 | 4 | 5 | 6 |
| 18. Regarding my health, I can only do what my doctor tells me to do. | 1 | 2 | 3 | 4 | 5 | 6 |

Scoring Instructions MHLC Scales

Form A or B

The score on each subscale is the sum of the values circled for each item in that subscale.

Internal Items: 1, 6, 8, 12, 13, 17

Chance Items: 2, 4, 9, 11, 15, 16

Powerful Others Items: 3, 5, 7, 10, 14, 18

QUESTIONNAIRE

This is a questionnaire to collect information about you. Please answer each question. It is important that you do not leave any questions unanswered. All answers are confidential. Please do not write in the space for "CODE."

Directions: Indicate one answer for each question.

1. Present age _____
2. Last year of school completed (circle number)
 1 2 3 4 5 6 7 8 9 10 11
 12 13 14 15 16 17 18 19 20 21 22

3. Income you personally earned last year
(check one)

_____ Less than \$9,999
 _____ \$10,000-\$14,999
 _____ \$15,000-\$19,999
 _____ \$20,000-\$24,999
 _____ \$25,000 or more

CODE

1. _____

2. _____

3. _____

APPENDIX C

COURSE OUTLINE FOR THE CHILDBIRTH
EDUCATION CLASSES

Course Outline for Childbirth Education Classes

Lesson #1

- A. Introduction--Introduce staff, define class structure, identify facilities, define use of kits, library, introduce lecture topic.
- B. Anatomy and Physiology--Define and describe internal and external reproductive organs and related pelvic structures, discuss related physiological changes.
- C. Problems of Pregnancy--Define and discuss common discomforts and list practical comfort aids.

BREAK
- D. Exercises--Kegel, pelvic tilt, positioning, leg lifts, rib cage lifts, timing contractions, cleansing breath, slow chest breathing, abdominal breathing, neuromuscular control.

Lesson #2

- A. Nutrition--Define and describe functions of protein, vitamins, minerals, review dietary recommendations.
- B. First Stage of Labor--Definition, description of entertainment phase, working phase, transition.
- C. Signs of Labor--Recognition of true labor versus false labor, when to call the doctor, slides on Breast and Bottle Feeding.

BREAK

- D. Exercises--Slow chest and abdominal breathing, positioning, back rub, effleurage, panting, simulation of pain, focal point.

Lesson #3

- A. Second Stage of Labor--Rotation of fetus, definition and description of expulsion.
- B. Third Stage of Labor--Definition and description of last stage, discussion of status of newborn.
- C. Status of the newborn--Head (molding), eyes and visual perception, ears, hearing, lips, mouth, cheeks, body, skin, jaundice, slides on baby bath and home health care.

BREAK

- D. Exercises--Positioning, simulation of pain, effleurage, back rub, panting, pant-blow.

Lesson #4

- A. Use of Medication--Definition and description of commonly used obstetrical medications, including maternal and fetal effects.

BREAK

- B. Exercises--Positioning, panting, pant blow, push.

Lesson #5

- A. Hospital Tour--Admitting procedures; vital signs, fetal heart tones, shave prep, enema, location of facilities.

Labor procedures: exams, bathroom privileges, x-rays, lab work, rupture of BOW. Delivery procedures: sterile technique, positioning, location of equipment, identification measures, breastfeeding. Postpartum procedures: massaging fundus, bathroom privileges, location of facilities, visiting privileges, pericare and lite, baby "on demand."

- B. Postpartum Period--Anatomy and physiology, emotions, discussion of common problems and suggested comfort aids.
- C. Birth Control
- D. Movies
 - 1. Nan's Class
 - 2. The Amazing Newborn

Lesson #6

- A. First Stage Labor Rehearsal
- B. Second and Third Stage Labor Rehearsal. Rehearsal will be implemented by a series of situational questions requiring participants to make judgments based on all information and physical exercise learned since first lesson.

BREAK
- C. Closing Remarks--Discussion of any problems, suggestions for future classes, "special requests" time.

APPENDIX D

COVER LETTER TO THE CONTROL SUBJECTS

603 Loop 288, Apt. H3
Denton, Texas 76201
March 15, 1983

I was referred to you by Joanne Rowell. I am a graduate student at Texas Woman's University who is conducting a study on the feelings and attitudes of pregnant women and their husbands. I would like you to participate in the study.

All that this involves is to complete the enclosed forms. They take about five minutes to fill out. One set of forms is marked "wife" and the other set is marked "husband." Please sign the consent form, complete the forms, and return everything to me in the enclosed, stamped envelope no later than April 1, 1983. No names will be used in the study and participation is voluntary.

If you would like a summary of the results of the study, please write your return address on the outside of the envelope. The results will be available in September or October.

Thank you for your cooperation. I shall look forward to hearing from you.

Sincerely,

Glynis J. Laing

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