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Sandra J. Metzger

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Major professor

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ASSOCIATIONS AMONG BIRTH PLANNING, CHILDBIRTH EDUCATION, AND SATISFACTION WITH THE BIRTH EXPERIENCE

By

Sandra J. Metzger

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ABSTRACT

ASSOCIATIONS AMONG BIRTH PLANNING, CHILDBIRTH EDUCATION, AND SATISFACTION WITH THE BIRTH EXPERIENCE

By

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The purpose of this study was to explore the associations among birth planning, childbirth education (CBE), and satisfaction with the birth experience. Primiparous women were interviewed by phone at 6 weeks postpartum. Data were examined for differences in satisfaction with childbirth based on whether there was any type of birth plan, and whether the birth plan was written or verbal-only. The possible interaction effect of CBE classes and birth planning on satisfaction was also explored. There were 18 women with written birth plans, 61 with verbal birth plans, and 16 women with no birth plan. Women in this study had very high mean satisfaction scores when rating their childbirth experiences. No significant differences were found to support an effect of CBE or birth planning on satisfaction in this sample. Although no significant differences in satisfaction were found among women based on the variables in this study, findings suggest a relationship between the congruence of a woman's expectations for her childbirth experience and the actual event, and her perception of satisfaction. More detailed assessment of the level or degree of birth planning may also help to clarify the associations among the study variables. Health care providers should continue to empower their clients through support of CBE and birth planning to promote realistic expectations for and positive perceptions of their childbirth experiences.

To my loving husband, Matt,

and my daughters, Leah and Sarah,

without whose love, support, and understanding,

all my efforts would be meaningless.

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Introduction

Background of the Problem

Childbirth is an important event in the life of a woman and her significant others. The birth of a new child is a developmental milestone, both personally for the individual parent, and collectively for the family. The parents' perceptions of the childbirth experience can have a profound effect on the transitions that are necessary when a new infant enters a family (Green, Coupland, & Kitzinger, 1990). The experience may also influence the clients' relationships with their health care providers and the overall health care system (Seguin, Therrien, Champagne, & Larouche, 1989; Simkin, 1991). Ensuring a positive and satisfying childbirth experience should, therefore, be a goal of health care providers to promote favorable physiological and psychological outcomes.

Patient satisfaction is an important aspect of health care, especially as it relates to maintaining and increasing market share in the competitive health care environment. The childbirth experience is an especially crucial time for ensuring patient satisfaction with care, since it is frequently the first experience many new families have with the health care system. Many hospitals target the childbearing population as the focus of many of their marketing strategies to entice new families to seek care at their facilities.

Active participation in decision making during the labor and delivery process has been shown to be a predictor of satisfaction with the birthing experience (Brown &

Lumley, 1994; Green et al., 1990; Humenick & Bugen, 1981; Seguin et al., 1989). Birth planning, whether written or verbal, can be an important method of enhancing the decision making abilities of the expectant mother. In the process of the preparation of a birth plan, the pregnant woman and her significant others can be given an opportunity to express their desires and goals for their birthing experience based on their knowledge, experience, cultural practices, and values.

Currently, childbearing families are faced with a multitude of options that may be considered for childbirth. Due to the high degree of global mobility, culturally diverse expectant parents come to the health care provider with widely varying levels of knowledge and expectations about pregnancy and the childbirth experience. Depending on previous experiences and exposures, expectant parents may have little socialization in or knowledge about the health care system in general, or the childbearing process. Although the ultimate goal of childbirth for both parents and health care providers is safe, positive maternal and infant outcomes, the means to that end may be widely varied. Childbirth education classes can serve as an important source of information and can promote the development of a birth plan, thereby assisting expectant parents to approach the childbirth experience with greater preparedness.

This study focused on the exploration of the associations between the preparation of a birth plan, participation in childbirth education classes, and the primiparous woman's overall perception of satisfaction with her birth experience. To strengthen decision making during labor and delivery, and to enhance positive perceptions of the birth experience, pregnant women and their significant others must be provided with

information to empower them to exercise their rights to decide what is best for them during their childbirth. Expectant parents should be provided with complete, current information about all options available to them, including the risks, benefits, advantages, and disadvantages of each of their possible choices (Lothian, 1993). Birth plans, however, have not been highly recognized or used as a tool to enhance decision making and satisfaction during childbirth (Way, 1996).

Birth planning has undergone an evolution during the 20th century. After the early years of the 1900s, when birthing moved out of the home and into the hospital, physicians controlled the management of women's birth experiences, and women were socialized to believe that the medical plan of management was what was "best" for them (Lindell, 1987; Lothian, 1993). Until the natural childbirth movement of the 1960s, a birth plan was an unheard of entity. Birth plans were devised as a means for women to voice their demands for decreased medication and instrumentation to the medical establishment. Birth plans were generally viewed, as described by Way (1996), as "a subversive act ....symbolic of a couple's determination to have some say in the 'management' (or lack thereof) of their labor and birth" (p. 10). Early birth plans were usually lists of "don'ts" and were symbolic of the mistrust which existed between expectant parents and physicians. More recently, birth plans have become an instrument that can be used to assist expectant parents to clarify their values and goals, to facilitate communication with health care providers, and to provide continuity of care through the various stages of the childbirth experience (Moore, Hopper, & Dip, 1995).

The Advanced Practice Nurse (APN) or other health care provider can have an

open discussion with the client and her significant others during the prenatal period in which information can be imparted, options can be considered, and a mutually acceptable plan of labor management can be negotiated. If the plan is developed during the prenatal period, the patient and the health care provider can enter into the actual labor and delivery experience with a clear understanding and realistic expectations of the process. Realistic expectations and open communication can help to ensure that the expectant parents will emerge from their childbirth with positive perceptions of the experience.

Statement of the Problem

There is growing empirical evidence about the effectiveness and outcomes of perinatal education, however there is insufficient research that addresses the variables in this study. Lindell (1988) reported that research about psychological outcomes has shown that positive attitudes toward labor and delivery and early maternal infant attachment may be promoted through participation in childbirth education programs. Findings concerning the physiological outcomes such as duration of labor, use of analgesia and anesthesia, and infant outcomes are inconclusive. Few researchers have specifically explored the factors that influence the perception of satisfaction with the childbirth experience. Lindell and others (Bramadat & Driedger, 1993; Lumley, 1985) have cited methodological problems associated with the measurement of satisfaction as a childbirth outcome. Lumley referred to satisfaction with childbirth as a "soft outcome", and addressed some of the problems with its measurement related to obstetric care. Dimensions of the assessment process that may have had an effect on the measurement

of childbirth satisfaction were presented: where and when the assessment of satisfaction was done, who did the assessment, what measurement tools were used, and if samples were representative of the population.

Another problem that has been identified with childbirth satisfaction literature is that many of the studies used a pain management model in which decreased pain perception was examined as the primary factor predictive of a satisfying childbirth experience. Humenick (1981) first proposed and later tested (Humenick & Bugen, 1981) a different model of measuring childbirth satisfaction, that of mastery, or control, as being the key factor affecting a woman's perception of satisfaction with her birth experience. This model has been supported by other studies in which the researchers concluded that perceived painfulness in labor was not necessarily related to satisfaction, and that one of the most predictive factors of a positive birth experience was a woman's perception of control and ability to actively participate in decision making (Bramadat & Driedger, 1993; Green et al., 1990; Lowe, 1996; Seguin et al., 1989; Simkin, 1991).

Although the literature on childbirth education and birth satisfaction is limited, there exists even less literature addressing the use of birth plans. Ekeocha and Jackson (1985) and Moore et al. (1995) evaluated the use and effectiveness of birth plans in their respective practice environments, and found that most women perceived birth plans as having positive benefits. Springer (1996) explored the relationship between the preparation of a birth plan and women's levels of anxiety at the end of their series of childbirth classes, but found no significant differences between women with and without birth plans. None of these studies attempted to relate the use of a birth plan or

participation in childbirth education to any measures of satisfaction with the childbirth experience.

Purpose and Research Questions

The purpose of this study was to examine the associations between the preparation of a birth plan, participation in childbirth education, and a primiparous woman's perception of satisfaction with her birth experience. The following research questions were addressed:

1. Is prenatal birth planning (written *or* verbal) associated with a primiparous woman's overall satisfaction with her childbirth experience irrespective of childbirth education?
2. Is there a difference in overall satisfaction with the childbirth experience between primiparous women who have a written birth plan and primiparous women who have *only* a verbal birth plan irrespective of childbirth education?
3. Is there an interaction between attendance at childbirth education classes and birth planning on a primiparous woman's overall satisfaction with the childbirth experience?

Conceptual Framework

Theoretical Definitions of the Study Variables

The concepts of birth planning, childbirth education, and satisfaction with the childbirth experience were first explored through examination of existing literature, and then defined for the purposes of this study. The concepts were then examined in the context of King's conceptual model and theory of goal attainment for nursing.

Birth Planning

Moore et al. (1995) defined a birth plan as "a written statement of a woman's wishes about the birth of her baby that aims to open up channels of communication between caregivers and women" (p. 29). Similarly, Springer (1996) stated that a birth plan "is a tool that can be shared with health care professionals to express preferences in regard to the events of labor and birth. It allows for greater involvement by the woman and her partner in decisions related to obstetrical management" (p. 21). Another description of a birth plan was a list of options and procedures on which expectant mothers were asked to record their preferences about the various aspects of care, which was offered with explanations for each of the options and procedures (Ekeocha & Jackson, 1985). The development of a birth plan according to Carty and Tier (1989) "results in a realistic plan for birth and in the development of a relationship between the family and care provider based on mutual trust and respect" (p. 111). Birth planning provides an opportunity to explore the expectant parents' fears, hopes, family values, and patterns of interaction, allowing the formulation of a realistic plan "not based on the fantasy of the ideal birth, nor developed out of fear; rather it is rooted in the family's needs" (Carty & Tier, 1989, p. 112).

Birth planning has several components based on the definitions and descriptions in the literature. A birth plan can be used as an educational and informational strategy to increase knowledge and understanding of the options, procedures, and rationales for their use that are available in different practice settings (Carty & Tier, 1989; Ekeocha & Jackson, 1985; Moore et al., 1995). Another component of the birth planning process is

assisting the expectant parents to evaluate their values, cultural practices, strengths, and desires, in order to develop realistic goals and specific strategies to achieve them (Carty & Tier, 1989; Ekeocha & Jackson, 1985; Way, 1996). Open and effective communication and the development of mutual respect is a third aspect of prenatal birth planning. The development and use of a birth plan demonstrates to the expectant parents that the health care provider is interested in their wishes, and that the parents are respected as mutual participants in their care (Carty & Tier, 1989; Ekeocha & Jackson, 1985; Moore et al., 1995; Way, 1996). A final element of a birth plan is the facilitation of decision making during the labor and delivery process. Because the physiological processes of childbirth are not under voluntary control, and parents' expressed plans may not be able to be followed, prior discussion of possible complications and contingencies of care can facilitate decision making during labor when the woman is most vulnerable (Ekeocha & Jackson, 1985; Moore et al., 1995; Springer, 1996).

For the purposes of this study, a birth plan was defined as a written or verbal plan developed during the prenatal period by the expectant mother and the health care provider who would be performing the delivery. Although not assessed in this study, a significant other may also have been involved in the birth planning process. Birth planning may have included, to varying degrees, discussion, sharing of information, clarification of roles, and identification of preferences and choices concerning the management of the labor and delivery. Conceptually, the birth planning process included setting realistic goals and establishing strategies to achieve them. Appropriate birth planning was conceptualized to foster improved communication within an atmosphere of

mutual respect and participation, and facilitate decision making during the childbirth experience.

Childbirth Education

In most instances in existing literature, childbirth education (CBE) referred to formal classes that were provided during the prenatal period to pregnant women and their significant others. Although CBE can occur through a variety of other avenues, such as self-study through books, videos, or routine discussions with health care providers, most research has included only formal classes as CBE. Several researchers described the content of CBE classes and included the following topics: anatomy and physiology of pregnancy, labor and delivery; nutrition and exercise; pharmacological and non-pharmacological pain management strategies including labor skills such as breathing and relaxation; common labor and delivery interventions; options for care along with the advantages and disadvantages of each; postpartum maternal care; infant care and feeding; and parenting skills (Crowe & von Baeyer, 1989; Lothian, 1993; Lumley & Brown, 1993; Zwelling, 1996). Lindell (1988) also stated that CBE should include information to assist expectant parents to prepare a realistic birth plan, understand the decision making process, and promote active participation in the birth experience. Various components of CBE were suggested by Lothian (1993), and included presenting information, enhancing coping skills, fostering support systems, promoting decision making, and providing client advocacy, with the most essential dimension of CBE being the promotion of informed decision making.

The definition of CBE in this study was a series of formal antenatal classes taught

by nurses which included factual information about pregnancy, labor and delivery, and postpartum maternal and infant care. Available methods of pharmacological and non-pharmacological pain management, common procedures, and the advantages and disadvantages of various options for care were also discussed in the class content. CBE classes were presented to provide factual information about pregnancy and the childbirth experience to promote informed decision making by the expectant parents, encourage effective communication with health care providers, and empower clients to develop a realistic birth plan. Expectant parents were encouraged to talk to their delivering practitioner about their preferences for delivery and the development of a birth plan. In this study, CBE classes were provided through one provider, thereby ensuring presentation of content by nurse instructors who were trained to use a consistent curriculum. Informal programs of self-study were not included or evaluated in this study.

Satisfaction with the Childbirth Experience

The concept of satisfaction has been referred to by some researchers as a positive feeling about the birth (Humenick & Bugen, 1981; Simkin, 1991). Seguin et al. (1989) defined satisfaction with childbirth as a general impression of the delivery in which a woman makes an evaluation of her personal experience based on her expectations. Bramadat and Driedger (1993) stated that satisfaction is a positive attitude or affective response to an event that results after a positive evaluation is made of an experience and of the emotions that are evoked by that experience. They further suggested that the experience is evaluated and measured against one's expectations.

Although satisfaction with childbirth is the subject of numerous studies, most

researchers did not specifically define the concept of satisfaction, rather they reported aspects of the childbirth experience that were associated with satisfaction or dissatisfaction with the event. Having an active role in decision making, being in control of oneself, being in control of what was being done, being treated with respect, and having adequate information are all aspects of childbirth that have been shown to be associated with satisfaction (Brown & Lumley, 1994; Bryanton, Fraser-Davey, & Sullivan, 1993; Callister, 1993; Green et al., 1990; Mackey, 1995; Seguin et al., 1989; Simkin, 1991). Evaluation of individual components of satisfaction were examined by some researchers (Brown & Lumley, 1994; Callister, 1993; Seguin et al., 1989), but the outcome measure of each component of the childbirth experience was identified as "satisfaction".

Satisfaction with the childbirth experience, in this study, was conceptually defined as a positive global perception of the childbirth experience based on the woman's emotional responses to the event and her evaluation of her own performance in handling the stresses of labor and delivery. Although there are various aspects of childbirth that have been suggested as components of satisfaction, in this study the researcher was interested in satisfaction as an outcome measure of the overall positive or negative impression of the childbirth experience, rather than the evaluation of specific components of the process.

Conceptual Model

The theory of goal attainment by Imogene King (1981) was used as a framework to conceptualize the relationships between the study variables: birth planning, CBE, and

satisfaction with the childbirth experience. King used a systems framework to explain the interrelationships among individuals, groups, and social systems, and to describe the role of nursing within the health care system. In the theory of goal attainment for nursing, King (1981) states that nurses "purposefully interact with clients mutually to establish goals and to explore and agree on means to achieve goals" (p. 142). Several propositions of the theory are that if transactions are made, goals will be attained, and if goals are attained, satisfactions will occur.

In King's model (1981), individuals are identified as separate personal systems. Interpersonal systems are those in which two or more individuals interact. The most important concept associated with effective function of the interpersonal system is that of transaction. King defines a transaction as "a process of interaction in which human beings communicate with environment to achieve goals that are valued" (p. 82).

Each individual experiences an interaction based on his or her own perceptions. King defines perception as the individual's "representation of reality" (King, 1981, p. 20). Perceptions are influenced by past experiences, education, cultural patterns, and current interests, needs, and goals. King cites accurate perceptions as the "first step toward mutual goal setting and toward exploring means to move toward those goals" (King, 1981, p. 24).

In this study, the variables of birth planning, childbirth education, and satisfaction with childbirth are the concepts of interest. King's theory of goal attainment can be employed to illustrate the relationships among these variables (see Figure 1). The personal system of greatest interest in this study is that of the client, the expectant

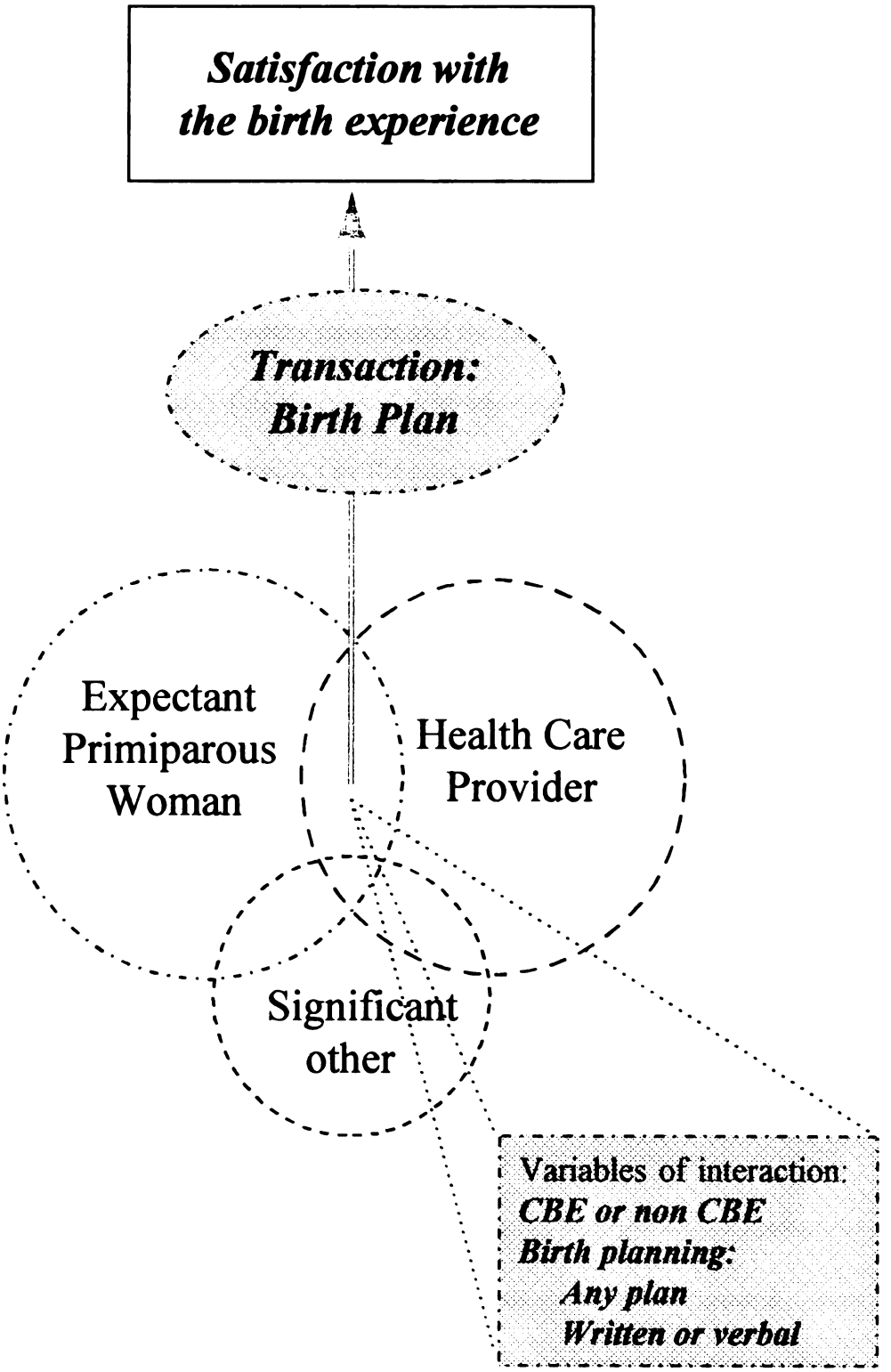

Figure 1: Birth Planning, Childbirth Education, and Satisfaction within King's Theory of Goal Attainment

mother. The client's significant other and the health care provider are other separate personal systems (depicted by circles in Figure 1). Each system is open and in constant interaction with the others, as represented by the permeable dotted lines. Each individual has his or her own perception of reality based on the influences of past experiences, knowledge, and cultural background.

The interaction of the expectant parents and the health care provider during the prenatal period was the focus of this study, and is an interpersonal system as described by King (1981). The interaction is depicted by the area of overlapping circles in Figure 1. If perceptions are accurate and an effective interaction takes place, a transaction results. The transaction in this study, resulting from the interaction of the expectant mother, her significant other, and the health care provider, is the development and use of a birth plan (see Figure 1).

The effect of several variables of the interaction were explored in this study. Variables included whether the expectant mother had CBE or not, whether there was any birth planning, or whether birth planning was written or verbal. Each of the variables was hypothesized to have the potential to influence the interaction and the occurrence of a transaction, and to result in varying degrees of satisfaction with the birth experience. CBE classes can provide an informational framework for the expectant parents which can affect their perceptions of the interaction. CBE can also prepare the expectant parents for effective communication with other health care providers, enhance decision making skills, and promote the development of a birth plan, which was the transaction of interest in this study.

If an effective interaction takes place, a birth plan, either written or verbal, is developed. During the transaction of developing a birth plan, the expectant mother and the provider communicate with each other to mutually establish goals, clarify roles, and identify strategies to increase the ability of the mother to cope with the stresses of the upcoming labor and delivery based on her individual preferences and desires. Although not addressed in this study, the woman's significant other may also be involved in the interaction. Birth planning can enhance the abilities of the involved individuals to perform their functions and roles during the birth process. Through the development and use of a birth plan, goals for the childbirth experience can be achieved, potentially resulting in greater satisfaction with the childbirth experience.

Literature Review

There is little current literature that examines birth plans, satisfaction with childbirth, or CBE, and the majority of literature related to these variables is descriptive and anecdotal in nature. Therefore, scant empirical knowledge about birth plans, satisfaction with childbirth, or CBE exists. No research was found that directly addressed the possible relationships among these variables. The empirical findings from available literature are summarized, and the theoretical and methodological limitations are discussed. Finally, the rationale for this study is presented based on consideration of the gaps in knowledge which currently exist.

Birth Plans

Few research studies were found that examined the preparation and use of birth plans. Ekeocha and Jackson (1985) and Moore and Hopper (1995) both conducted

evaluative research concerned with examining the effectiveness of using specific documents as birth plans in each of their respective practice environments. Springer (1996) investigated the relationship between preparation of a birth plan and anxiety prior to delivery. No research was available that discussed the relationship of birth planning or CBE to satisfaction.

Ekeocha and Jackson's (1985) study was conducted in 1982 at the Huddersfield Maternity Unit in England, and Moore and Hopper's (1995) study was done in the South Western Sydney (Australia) Area Health Service in 1993. In each of these studies, 100 women who had completed a birth plan were asked to evaluate the use of the plan. Subjects were interviewed within the first few days after delivery, and were asked to complete a questionnaire about the use of the birth plan. Subjects in both studies included primiparous and multiparous women with vaginal and Cesarean deliveries.

Results of Ekeocha and Jackson's (1985) evaluation included that most women found the birth plan "helpful" and "reassuring" (p. 98). Although different birth planning documents were used in the two studies (Ekeocha & Jackson, 1985; Moore & Hopper, 1995), similar findings emerged. Numerous advantages of using birth plans were found. First, the researchers found that use of a birth plan increased the patients' knowledge and understanding of the labor and delivery process, and made them more aware of their options for care. Communication between the expectant mother and hospital staff was improved, and mothers felt more comfortable asking questions and expressing their needs and preferences. Use of a birth plan encouraged discussion during the antepartum period about possible complications and procedures, which facilitated explanations and

enhanced decision making abilities during labor when the parents were more stressed. Birth plan preparation and use were perceived to demonstrate a desire by the providers to recognize the wishes of their clients, thus promoting an atmosphere of respect with the expectant parents. Improved communication, that emerged from birth plan use, resulted in the development of mutual partnerships, and helped establish a balance of power between parents and providers. The conclusion was made by Ekeocha and Jackson that a birth plan may have it greatest potential impact during labor "when the woman feels she will be at her most vulnerable and least able to make decisions" (p. 100). Based on their findings, Moore and Hopper advocated the use of a birth plan as an educational and empowerment strategy, especially for women who had never attended CBE classes.

The third study, by Springer (1996), related birth planning to its effect on anxiety prior to labor. Forty-five primiparous women were randomly assigned to an experimental group (21 women) that completed a written birth plan developed by the researcher, or a control group (24 women) that did not have a birth plan. The results comparing state and trait anxiety levels in the two groups at the completion of their CBE class series showed no significant differences between the birth planning and non-birth planning women.

There were several limitations identified in these studies of birth plans. In the study by Ekeocha and Jackson (1985), there was no definition of the birth plan concept, nor was there a discussion of the literature. Only Springer (1996) provided a theoretical framework from which to examine the concepts of interest. The actual birth plan document was provided, with the exception of Springer. The birth plan used by Ekeocha

and Jackson included only 16 items or options for care, which may have significantly restricted the potential choices for expectant parents, thus limiting the effectiveness of the plan. Moore and Hopper's (1995) birth plan was more inclusive of possible care options, with a listing of about 50 choices. Each study differed greatly in the level of participation in CBE by the subjects. Moore and Hopper reported 41% CBE subjects, all women in Springer's study had CBE, and no indication of CBE status was described in Ekeocha and Jackson's research.

There were also concerns in each of the studies about the representativeness of the samples. Springer (1996) had subjects who were predominantly Caucasian, married, and well-educated, while Moore and Hopper (1995) studied young, low-income, poorly-educated women delivering in two public hospitals. Ekeocha and Jackson (1985) included no demographic or descriptive information about their sample, except for primiparous or multiparous status. Springer had a small sample size, which the investigator suggested as a reason for the lack of statistical significance of the results. Additionally, the research by Ekeocha and Jackson (1985) and Moore and Hopper (1995) was directed at evaluation of a specific birth plan form, so no control groups were used for comparison. Also, in each of the studies, self-selection of the subjects was a limitation that was not addressed.

Only Springer's (1996) study was conducted in the United States, while Ekeocha and Jackson's (1985) research and Moore and Hopper's (1995) study were done in England and Australia, respectively. Although the health care systems in England and Australia are very similar to that in the U. S., the findings of these studies (Ekeocha &

Jackson, 1985; Moore & Hopper, 1995) cannot necessarily be applied to health care delivery in an American population. However, it must also be noted that there was not any other literature from the U. S. that could be used to explore the topic of the effectiveness of birth planning.

Other methodological limitations were also found. No mention was made of informed consent of the participants or protection of the subjects' confidentiality, and little description was given of the methods used for administering the interview or questionnaire in Ekeocha and Jackson's (1985) study. Springer (1996) provided adequate information about the instrument used to measure anxiety in the subjects, but little detail was provided about the actual instrument used for evaluation in either of the other studies. However, the major methodological limitation found was in Springer's (1996) study, in which anxiety was measured at the conclusion of CBE classes, remote from the labor and delivery experience. The author discussed potential adverse effects of anxiety on labor outcomes and the role of a birth plan in reducing anxiety, but failed to assess the subjects' anxiety levels during labor. Because of the timing of the measurement of anxiety, there was in effect, no evaluation of the relationship between the use of a birth plan and levels of perceived anxiety during the actual birth experience, when birth plans exert their most impact.

Satisfaction with the Childbirth Experience

Satisfaction with the childbirth experience was the variable about which the most literature could be found. Although numerous authors discussed satisfaction, little research has been done to obtain empirical evidence. Few definitions of satisfaction

were offered, and most researchers attempted to identify factors associated with satisfaction rather than describing the concept or developing a theoretical perspective from which to examine it. Bramadat and Driedger (1993) also proposed that it is important to differentiate between the assessment of overall, global satisfaction and the measurement of particular aspects of satisfaction with the childbirth experience.

Another theoretical problem that has been identified with the investigation of satisfaction with childbirth is that some studies have used a pain model in their research (Crowe & von Baeyer, 1989; Lowe, 1991, 1996). In a review of childbirth satisfaction by Humenick (1981), a model of mastery was proposed as the key to evaluating this concept. Humenick concluded that women considered childbirth to be an important psychological task in which they wanted to be active participants. In a study by Humenick and Bugen (1981), this theory was tested and supported. In the remainder of the review of childbirth satisfaction literature, those studies using only the pain model will be excluded from the discussion.

As mentioned earlier, most studies were concerned with identifying factors related to satisfaction. These factors cannot be ignored when examining this concept. The components of satisfaction that have been supported by most of the literature will therefore be presented here. The perception of control, or the mastery model, was supported by Bramadat and Driedger (1993), who identified self-control and coping with pain, and control over the environment as separate dimensions of this aspect of satisfaction. Feeling in control was also found to be an important aspect of satisfaction by other researchers (Bryanton et al., 1993; Callister, 1993; Green et al., 1990). The

congruence between a woman's expectations of her delivery and the reality of the experience also affected her overall perception of satisfaction (Bramadat & Driedger, 1993; Green et al., 1990; Seguin et al., 1989). Brown and Lumley (1994), Seguin et al. (1989), and Simkin (1991) identified having an active say in making decisions as a factor highly related to a positive experience. Not having appropriate information was negatively correlated with satisfaction measures (Brown & Lumley; Seguin et al.). Virtually all satisfaction literature mentioned feeling cared about, respected, and supported by providers as another factor. Green et al. and Seguin et al. reported that women felt less satisfied when more interventions were used. Overall, Simkin (1991) concluded that women's long-term satisfaction was associated more with "the way they conduct themselves and the way they are treated than with the actual clinical features of their labor" (p. 209).

Each of the authors presented their study with varying degrees of detail about their samples, methods, instruments, and other aspects of their research. The specific details of each study are not as important as some of the larger issues of methodological concerns that were discussed in some of the literature. Rather than enumerating the limitations of individual studies, the problems in the research designed to measure satisfaction with childbirth will be addressed in aggregate.

Bramadat and Driedger (1993) discussed the difficulty in measuring an undefined concept, with most studies failing to give an actual definition of satisfaction. Lumley (1985) questioned the manner in which assessments were made, whether satisfaction was measured by monitoring complaints, by single or multiple questions, with rating scales,

or with open or closed-ended questions. The lack of demonstrated reliability and validity of measurement tools was also identified as a limitation (Bramadat & Driedger; Seguin et al., 1989). It was suggested that appropriate weighting of various components of satisfaction according to the importance that women placed on each should be considered (Bramadat & Driedger, 1993).

Another major area of concern in measuring satisfaction was the timing of the assessment. In the immediate postpartum period, women experience overwhelming ranges of emotion and levels of energy, making completion of a questionnaire or interview a challenge at best. Additionally, if the researcher is a care provider, patients may feel pressured to respond positively. The feelings of relief and elation of a healthy childbirth outcome may also affect the patient's responses. In contrast, a mother who has an experience that does not meet her expectations, may suffer a grieving response and be in the denial stage during the early postpartum (Lumley, 1985). Although there have been criticisms about doing satisfaction assessments at four to six weeks or longer after delivery, several researchers have shown that women's perceptions of satisfaction change very little over that time period (Bramadat & Driedger, 1993; Simkin, 1991). Some researchers question whether women can accurately recall details of their deliveries after the immediate postpartum period. Githens, Glass, Sloan, and Entman (1993) concluded in their research that women had an 89% agreement with their medical records for a period of four to six years. Simkin (1991) found that most women had vivid recall of their delivery experiences, even after 15 to 20 years, and that long-term satisfaction was a stable measure.

Other limitations of research were that most studies used convenience samples, which may or may not have been representative of the childbearing population, therefore preventing generalization of findings. The sample sizes varied greatly depending on the nature and methods of the particular study. In most studies, there were no control or comparison groups, and no random assignment to treatment.

Childbirth Education

The discussion of research literature about the effectiveness of CBE is necessarily brief, since only one study was found that actually empirically investigated CBE (Lumley & Brown, 1993). All other CBE literature was descriptive, and offered no empirical data.

The study by Lumley and Brown (1993) involved a survey of all women who delivered in a two week period in 1989 in Victoria, Australia. The purpose of the study was to describe women who attended CBE classes and those who did not, and compare them and their childbirth experiences. Almost 84% of their sample did have CBE, so their comparison group was small. No differences were found between the two groups in their satisfaction with their delivery experiences.

The limitations with this study (Lumley & Brown, 1993) were some of those that have already been discussed. There were no definitions of the concepts of CBE or satisfaction, nor was there any use of a theoretical framework. The instrument used was described, but no demonstrated reliability or validity measures were provided. Again, another limitation that may be cited is that the study was done in Australia, and findings cannot necessarily be generalized to the current study population. However, as

previously stated, the health care system in Australia is very similar to that in the United States, so application of findings may be appropriate.

Relationship of Existing Literature to the Present Study

Through the discussion of existing literature, it is apparent that there is a continued need for research addressing the variables in this study. Studies of birth plans have evaluated specific documents, and have not provided information about the general concept of a birth plan or its effect on measures of satisfaction with childbirth. In most satisfaction research, many theoretical and methodological concerns were identified, presenting many opportunities for additional research to augment the empirical data that is currently available. The CBE research is so scarce, that almost any topic associated with CBE is ripe for investigation.

Existing literature on birth planning has identified that various components which have been associated with satisfaction are also associated with birth plans. CBE similarly has been explored as a factor affecting many different aspects of the childbirth experience, including satisfaction. However, there are no studies that have tried to demonstrate the possible relationships among these three variables.

In this study, the relationships among birth planning, CBE, and satisfaction with the childbirth experience were examined. CBE was hypothesized to have an indirect or interactive effect on satisfaction by providing general knowledge and promoting the development of a birth plan with the expectant woman's health care provider. Birth planning, however, was proposed as having a more direct effect on satisfaction, since appropriate birth planning provides for more individualization of strategies and goals for

the experience for the expectant woman. By addressing the client's specific needs and desires more directly, the potential for achieving greater satisfaction with the childbirth experience can be enhanced through birth planning.

Although little empirical data exist demonstrating the true effectiveness of CBE, the curriculum of CBE classes includes topics that impact many aspects of the childbirth experience. CBE provides a foundation of knowledge, teaches coping strategies for pain, and educates participants about the options available for childbirth. Birth planning can be encouraged in CBE classes, and expectant parents can be assisted to develop skills to communicate more effectively with health care providers. Through more effective communication and interactions with health care providers, expectant parents can be empowered to develop and use birth plans, which can increase the likelihood that their goals for their childbirth experience can be attained.

Birth plans have been hypothesized to have an more direct effect on satisfaction with the childbirth experience, because of the influence birth plans can have on the various components of satisfaction. Research literature has supported the associations between many aspects and consequences of birth planning and satisfaction with the birth experience. The discrepancy between expectations and the reality of the experience, as presented by Bramadat and Driedger (1993) and Simkin (1991), can be influenced by the use of a birth plan. Prenatal birth planning can result in more realistic expectations, and a greater understanding about the possible complications and the use of various procedures. Feeling cared about and respected, having open communication, and being provided with appropriate information have all been associated with women's

perceptions of feeling in control, which has in turn been linked with satisfaction (Bryanton et al., 1993; Callister, 1993; Green et al., 1990; Mackey, 1995). The use of interventions was suggested by a few researchers to correlate with dissatisfaction (Green et al., 1990; Seguin et al., 1989); however, Green et al. explained further that it is not the interventions per se that effect satisfaction, but the perception by the mother that the right thing was done. With enhanced knowledge and decision making skills, the woman's ability to participate in choosing the "right thing" is increased. Each of these factors are integral components of birth planning, and because these factors have been shown to be linked with satisfaction, the appropriate preparation and use of a birth plan can be proposed as a strategy to enhance childbirth satisfaction.

Although measurement of individual aspects of satisfaction can be done, Bramadat and Driedger (1993) concluded that "the overall measure of satisfaction was a sensitive measure of the various dimensions" (p. 23). In this study, the measures of satisfaction included overall feelings of satisfaction, and some measures of perception of personal control, since control emerged as one of the factors most highly related to satisfaction.

Existing research does provide some data about CBE, birth planning, and satisfaction with the childbirth experience, and suggests that there are associations among these variables. According to Humenick's (1981) mastery model, childbirth satisfaction can be promoted by encouraging expectant mothers to "become informed, set realistic goals, learn coping skills for pain management, prepare for active participation in decision making, and develop an adequate support system" (p. 81). Each of these

aspects of satisfaction are potential products of CBE and birth planning, which provided the inspiration and rationale for this study.

Methods

Research Design

This descriptive study used a non-experimental, cross-sectional design. The purpose was to investigate and describe the relationships of prenatal birth planning and CBE to a primiparous woman's satisfaction with her childbirth experience. This study is one part of a larger study on the outcomes of childbirth education by Tiedje, Omar, Schiffman, Wright, McCann, Metzger, and Buzzitta (1996), which was done in cooperation with Expectant Parents' Organization, the local CBE class provider. The purpose of the overall project was twofold: (a) to describe who had taken childbirth education classes (first phase), and (b) to examine outcomes for women who had taken CBE classes from the provider and for a comparison group of women who had not had classes (second phase). This study is a portion of the second phase of the overall research project.

The investigators in the overall study were four faculty members of the Michigan State University College of Nursing, two graduate nursing students, and the director of the local CBE organization. The four faculty investigators were responsible for the entire study, and the two graduate students, including the investigator for this study, were involved as co-investigators in planning and conducting the overall project. The director of the CBE organization was involved in the planning of the project and provided clerical support, including scheduling of interviews, central collection and storage of survey

forms, data entry, and mailing gift certificates to subjects on completion of interviews.

Sample

The sample consisted of a convenience sample of women who delivered between May 15, 1996 and September 15, 1996 at one tertiary care center and one smaller community hospital in the mid-Michigan area. Subjects met the following criteria: (a) primiparous women with surviving infant, (b) able to understand and speak English, (c) able to be reached by telephone at six weeks postpartum, and (d) gave consent to participate. The final sample consisted of 50 CBE women, 45 non-CBE women, and 4 clinic waiting room CBE women. Because the clinic waiting room CBE group was insufficient in number and the class structure was not consistent with the definition of CBE in this study, the subjects were excluded from analysis for this study.

The final sample in this study consisted of 95 women: 50 women with CBE and 45 without CBE. There were 18 (19%) women with written birth plans, and 61 (64%) with verbal-only birth plans, totaling 79 (83%) women who had some form of birth plan. The remaining 16 (17%) women reported having no birth plan of any type. Of the 18 women who reported having written birth plans, 15 (83%) had CBE, the remaining 3 (17%) did not attend CBE classes. For the 61 women with verbal-only birth plans, 27 (44%) had CBE and 34 (56%) did not. The 16 women who reported having no birth plan were divided equally between the CBE and non-CBE groups, with eight in each group.

Instrumentation

The interview schedule developed for the primary study is included in Appendix A. The questions included information about the intrapartum and postpartum periods,

including physical factors, psychosocial factors, pain control, relationship with significant others, infant outcomes, and other factors such as resources used and demographics. Many of the questions had been used previously on postpartum questionnaires administered through the CBE organization, while other questions were developed specifically for this study.

The satisfaction measures used for this study (items 30 through 39, Appendix A) were from the PSEQ (Lederman et al., 1981) which was developed to provide a quantifiable measure of factors associated with maternal adaptation. This subscale of the PSEQ was designed "to reflect the mother's sense of gratification and accomplishment versus disappointment from childbirth" (Lederman et al., 1981, p. 205). The coefficient alphas of this subscale in Lederman's study (1981) were 0.80 and 0.87 at 3 days and 6 weeks postpartum, respectively. The reliability coefficients for each of the eight subscales were higher at both measurement occasions than the intercorrelations among the subscales, indicating that each of the eight different subscales provided unique information. No other specific information addressing content validity was available.

The satisfaction subscale from the PSEQ was found to be a reliable measure for satisfaction with the birth experience as defined in the present study. There were a total of 88 cases for which there were responses for all 10 items. An overall alpha of .75 and a standardized item alpha of .75 were obtained for the scale. The mean inter-item correlation for the scale was .23.

Operational Definitions

Birth Plans

Preparation and existence of a birth plan was operationalized by direct questioning in the interview (items 6 and 7, Appendix A). Subjects were asked if they had a written birth plan, and if they talked to their doctor or nurse in the office or clinic where they received prenatal care about their options and preferences before their delivery. Subjects who answered "Yes" to either of these questions were identified as having a birth plan, while subjects answering "No" to both questions were identified as being in the non-birth planning group. The birth planning group was further subdivided into written birth plan and verbal only birth plan groups.

Childbirth Education

Participation in childbirth education classes was also operationalized by direct questioning (item 2, Appendix A). If the subject responded that she had attended CBE classes, additional questions were asked to determine if the classes were in the traditional (evenings or weekends) format, or if she attended clinic waiting room classes. The subject was also asked how many classes she had missed. If the subject answered "no" to having CBE classes, the interview proceeded directly to questions about the childbirth experience.

Satisfaction with the Childbirth Experience

Satisfaction with childbirth was operationalized by using 10 questions from the Postpartum Self-Evaluation Questionnaire (PSEQ) which was developed by Lederman, Weingarten, and Lederman (1981) to measure components of maternal adaptation during

the postpartum period (see items 30 through 39, p. 5, Appendix A). These questions comprised one of eight subscales of the PSEQ, and were developed specifically to measure the mother's gratification from her labor and delivery experience. Although gratification and satisfaction can not be assumed to represent the same concept, they are highly related and can be measured in a similar fashion. Questions from the PSEQ gratification subscale include "Giving birth was satisfying to me", "Overall, my labor and delivery was a good experience", and "I feel joyful when I remember the birth of the baby". Because of the content of these and other questions in the subscale (see Appendix A), this tool was identified as being an appropriate measure for satisfaction as defined in this study. The satisfaction scale was scored using a 5-point Likert scale ranging from 5 (very true) to 1 (not at all true). Items 32, 34, 35, and 36 were reverse scored since they were worded negatively. Overall satisfaction scores were obtained by computing a mean score for the 10 items from the PSEQ. A higher score indicated a more positive perception of satisfaction with the childbirth experience.

Procedure

Recruitment of Subjects

Subjects for the second phase of the overall project were recruited through CBE classes and through the hospital in which they delivered. At the time of recruitment, potential subjects were informed that a gift certificate would be mailed to them on completion of the phone interview.

CBE subjects. Women who attended CBE in the traditional setting (a series of classes held in the evening or on weekends) were asked to participate in the study when

they were near the end of the class series. One of the investigators attended a class session and explained the purpose of the study to the class participants. Any woman who was willing to participate was asked to sign the informed consent (see Appendix B), and include her expected due date. Women who agreed to participate were contacted again by a representative of the CBE organization at an estimated two weeks after their delivery (based on their expected date of delivery), to confirm continued consent to participate, and to schedule the phone interview at approximately six weeks postpartum. Most of the primiparous women in the CBE classes who were asked to participate signed consent forms, but not all were contacted to participate in the study. Based on expected due dates, CBE women were contacted during June, July, August, and September to schedule interviews, until adequate numbers of subjects in this group were obtained. No records were kept to determine the total number of women who were approached in this group, so an overall response rate could not be determined. However, of those women who had signed consent forms and were subsequently contacted and scheduled for interviews, only three women did not complete the interview, resulting in a response rate of 94%.

Non-CBE subjects. Women who had not had CBE classes were identified during their delivery hospital stay by the investigator of the present study and three other selected staff nurses. When a delivered woman was identified as having had no CBE classes and meeting the other selection criteria, she was approached, the study was explained to her, and she was asked if she was willing to participate. Signed consent (see Appendix B) was obtained from women who agreed to participate. Date of delivery was

recorded on the consent form. The woman was then called by the CBE provider within approximately two weeks after delivery, continued consent to participate was confirmed, and the phone interview at approximately six weeks postpartum was scheduled.

Overall, for this group, there were 78 eligible women who were approached and asked to participate in the study. Eight of these women declined participation, yielding an initial response rate of 89.6%. Of the remaining 70 women, there were 19 who were unable to be contacted after discharge from the hospital, due to incorrect phone numbers, unreturned calls or messages, or disconnection of phone service. Of those women who were scheduled for interviews, only six did not complete the survey, resulting in a response rate of 88%. This yielded an overall response rate of 59% based on the entire eligible non-CBE group (46 women who completed the interview out of the 78 who were identified as being eligible).

Conduction of the Phone Interviews

The four faculty investigators and the two graduate nursing students conducted all of the phone interviews. Prior to beginning interviews with study subjects, several training sessions were held to practice interviewing techniques, to develop a list of definitions to be used for clarification of respondents' questions during the interviews, and to review standard recording procedures.

Subjects were mailed a copy of the questionnaire about two weeks before the scheduled date of the interview, and they were given the name of the nurse who would be calling them. Subjects were then called on the telephone at the scheduled time. If the woman was unable to complete the interview at the time of the initial call, another time

was arranged. If the woman could not be reached, several other attempts were made to reach her and complete the interview. If at the time of the interview the woman no longer consented to participate, or if the woman was unable to be reached after several attempts, she was dropped from the study. For subjects who completed the interview, a gift certificate for a local store was mailed to them by the CBE provider within 2 weeks of completion of the interview.

Data Analysis

Data from this study were analyzed using the Statistical Package for the Social Sciences (SPSS) computer software program. The sociodemographic data were summarized using frequencies, percents, means, and standard deviations to describe the sample. Demographic data of interest included age, marital status, race, education, employment, and household income. The sample was divided into subgroups (based on birth planning and non-birth planning, and CBE and non-CBE), and data were analyzed for each group to identify any systematic differences between the groups. A significance level of $p<.05$ was used in all analyses. Satisfaction measures data from the PSEQ satisfaction subscale were summarized using means and standard deviations.

The first two research questions were concerned with differences between two groups. Question one asked if there was a difference in satisfaction between primiparous women with and without a birth plan (written or verbal). Question two addressed possible differences in satisfaction between written and verbal-only birth planning groups. The independent samples t-test was used to determine if there were statistical differences in satisfaction between the two groups in each instance.

The third research question explored the possible existence of an interaction effect between CBE and birth planning on satisfaction. A factorial (2 X 2) ANOVA was used to determine if an interaction effect was present in this sample.

Protection of Human Subjects

For the overall study, approval by the University Committee on Research Involving Human Subjects (UCRIHS) was obtained (see Appendix C). Approval was also obtained through the Institutional Research Review Committee (see Appendix C) for subjects from the tertiary care hospital. The Obstetrics and Gynecology Department and the Family Medicine Department at that institution were also asked for permission to include patients in the study. Approval from each of these departments was obtained (Appendix C). Verbal approval for inclusion in the project was obtained from administrative representatives at the community hospital that was involved.

There were no identified risks to the subjects involved in the study; however, participants were informed that if they were uncomfortable with any of the questions in the interview, they did not have to answer them, and that they could stop the interview at any time. Subjects were informed that the principal investigators would be available to address any concerns or issues by phone at the number that was provided to each of them.

Study participants' confidentiality was protected by identifying them by number only when data from the surveys were entered into the computer. All documents in the study that could lead to identification of individual subjects were stored initially in a locked file drawer at the CBE provider's office, and will be transferred for long-term

storage to a locked file drawer in the office of one of the principal investigators at the Michigan State University College of Nursing.

For the analysis of data in this portion of the study, only data that was pertinent to this study was received from the data file available from the larger study. Subjects were identified by code number only.

Assumptions and Limitations

Assumptions

In this study, it was assumed that the subjects understood the questions during the phone interviews and that they answered truthfully. It was also assumed that the nurse interviewers recorded the subjects' answers correctly, and that data were subsequently entered accurately into the computer.

Limitations

The first limitation of this study was that a convenience sample was used, in which only women who voluntarily agreed to participate were included. With this type of non-probability sampling, there was no way to determine if there were any systematic differences between women who agreed to participate and those who refused. The study also included only first-time mothers, so generalizations can not be made to a population of pregnant women, since multiparous women (mothers with other children) may differ from primiparous women in respect to birth planning and satisfaction with childbirth. The CBE group consisted of only women who had attended CBE classes given by one community childbirth education provider, which limits the application of findings in this study to women who had CBE from other sources.

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In establishing the presence of birth planning, no specific questioning was done to determine the extent of the birth planning that had been done. Subjects were asked only if they had a written birth plan, or if they had talked to their doctor or nurse about their options and preferences (verbal birth plan). Subjects were identified as being in the birth planning group if they answered "Yes" to either or both questions. No evaluation was made to determine if various aspects of the birth planning process were included, such as discussion of all available options, cultural practices and preferences, possible complications of labor and delivery and rationale for treatment, and other aspects of care. Assessment was not done to determine if the woman was counseled about her own role and the roles of others, such as her partner or the nurse, in the labor and delivery process or in decision making. No attempt was made to discern the level of birth planning on a continuum from minimal to maximal, which may have affected the subject's perceptions of satisfaction with the birth experience.

Results

Demographics

The birth planning group had a mean age of 24.84 years, ranging from 15 to 40 years old. Other characteristics of the birth planning group included that the subjects were predominantly Caucasian, had at least a high school education, worked at least part-time, had an annual household income of greater than $20,000, and were married. The non-birth planning group subjects were an average of 26.94 years old (range 19 to 38 years), and shared similar demographic characteristics. The comparison groups were analyzed for differences in demographic factors, and were found to have no significant

differences in age, education, race, employment, income, or marital status. Although not statistically significant, the non-birth planning group subjects were slightly older and were employed full-time. There were 10 (13%) of the birth planning subjects but none of the non-birth planning subjects with less than a high school education. Tables 1 and 2 summarize the characteristics of the sample when divided on the basis of whether or not they had a birth plan (written *or* verbal), irrespective of CBE attendance.

Table 1

Means and Standard Deviations of Age and Education for Birth Planning Comparison Groups

Research question 1	***Birth Plan Group*** (n=79)		***Non-Birth Plan Group*** (n=16)	
Variable	*Mean*	*SD*	*Mean*	*SD*
Age (in years)	24.84	5.91	26.94	5.50
Education (years completed)	13.70	2.34	14.00	2.03
Research question 2	***Written Birth Plan*** (n=18)		***Verbal-Only Birth Plan*** (n=61)	
Variable	*Mean*	*SD*	*Mean*	*SD*
Age (in years)	25.44	5.22	24.66	6.13
Education (years completed)	14.28	2.61	13.52	2.25

Tables 1 and 3 show the demographic characteristics of the subset of the sample that had birth plans when divided on the basis of written birth planning or verbal-only birth planning, again irrespective of CBE attendance. When comparing written and

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Table 2

Demographic Characteristics for Birth Planning and Non-Birth Planning Groups

	Birth plan (n=79)		***Non-birth plan*** (n=16)	
Characteristic	*no.*	%	*no.*	%
Race:				
Caucasian	61	77	12	75
Non-Caucasian	18	23	4	25
Education:				
≤ 11 years	10	13	0	0
12 years (high school)	23	29	7	44
13-15 years	18	23	3	19
≥ 16 years	28	35	6	37
Employment:				
None	30	39	5	31
Part-time	16	20	1	6
Full-time	32	41	10	63
Missing data: 1 from BP group				
Annual income: (in dollars)				
< 5,000	3	4	1	7
5,000-9,999	5	7	0	0
10,000-14,999	7	10	0	0
15,000-19,999	4	6	0	0
20,000-29,999	10	15	3	22
30,000-39,999	8	12	1	7
40,000-49,999	7	10	2	14
≥ 50,000	24	35	7	50
Missing data: 11 from BP group 2 from non-BP group				
Marital status:				
Never married	22	30	2	14
Engaged	0	0	1	7
Cohabiting	4	5	1	7
Separated	1	1	0	0
Married	47	64	10	72
Missing data: 5 from BP group 2 from non-BP group				

Table 3

Demographic Characteristics of Written and Verbal-only Birth Planning Groups

	Written birth plan (n=18)		***Verbal-only birth plan*** (n=61)	
Characteristic	*no.*	%	*no.*	%
Race:				
Caucasian	15	83	46	75
Non-Caucasian	3	17	15	25
Education:				
≤ 11 years	2	11	8	13
12 years (high school)	3	17	20	33
13-15 years	4	22	14	23
≥ 16 years	9	50	19	31
Employment:				
None	6	33	24	40
Part-time	1	6	15	25
Full-time	11	61	21	35
Missing data: 1 from verbal-only group				
Annual income: (in dollars)*				
< 5,000	0	0	3	6
5,000-9,999	0	0	5	10
10,000-14,999	1	6	6	11
15,000-19,999	2	12	2	4
20,000-29,999	0	0	10	19
30,000-39,999	5	31	3	6
40,000-49,999	1	6	6	11
≥ 50,000	7	44	17	33
Missing data: 2 from written group 9 from verbal-only group				
Marital status:				
Never married	2	12	20	35
Engaged	0	0	0	0
Cohabiting	0	0	4	7
Separated	0	0	1	2
Married	15	88	32	56
Missing data: 1 from written group 4 from verbal-only group				

* X^2=14.94, p<.04

verbal-only birth plan groups, although not statistically different, women with written birth plans tended to be slightly older, have more education, and worked full-time. Only one significant difference was found between the two groups; women with written birth plans had higher annual household incomes, with 81% of them reporting incomes of greater than $30,000, while only 50% of the verbal-only group had annual household incomes of greater than $30,000.

Results Related to the Research Questions

The results of this study are presented by addressing each of the original research questions. Each of the research questions examined the association of different factors of birth planning and CBE as they relate to the outcome measure of satisfaction with the birth experience. Results of each analysis are presented separately.

Research Question 1

The first research question asked if prenatal birth planning (written *or* verbal) was associated with a primiparous woman's overall satisfaction with her childbirth experience irrespective of CBE. Satisfaction scores ranged from 2.78 to 5.00 for the birth planning group, and from 2.6 to 4.9 for the non-birth planning women. Table 4 shows the means and standard deviations of the satisfaction scores for women with any birth plan, written or verbal, and for women with no birth plan. Mean scores indicated both groups had high levels of satisfaction. Levene's test for equality of variances demonstrated that the variances were equal in the two groups. T-test results indicated that there was no significant difference in the mean satisfaction scores for women with or without birth plans, (t (93) = .35, ns). Therefore, there

was not evidence in this sample to support the hypothesis that any birth planning, whether written or verbal, would result in higher levels of satisfaction with the birth experience.

Table 4

Means and Standard Deviations of Satisfaction with the Birth Experience Scores

Satisfaction scores	*n*	*Mean*	*SD*
Research question 1			
Birth planning	79	4.40	.56
Non-birth planning	16	4.35	.55
Research question 2			
Written birth planning	18	4.46	.47
Verbal-only birth planning	61	4.39	.59

Research Question 2

The second research question asked if there was a difference in overall satisfaction with childbirth between primiparous women who had a written birth plan and primiparous women who had *only* a verbal birth plan irrespective of CBE. Satisfaction scores ranged from 3.6 to 5.0 for the written birth plan group, and from 2.78 to 5.0 for the verbal-only birth plan group. Table 4 shows the means and standard deviations of the satisfaction scores for women with written birth plans and for women with verbal-only birth plans. Both groups reported high mean levels of satisfaction. Levene's test for equality of variances demonstrated that the

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variances were equal in the two groups. T-test results indicated that there was no significant difference between the mean satisfaction scores for women with written and verbal-only birth planning, (t (77) = .46, ns). In this analysis, evidence was not found in this sample to support the hypothesis that written birth planning would result in higher levels of satisfaction with the birth experience as compared to verbal-only birth planning.

Research Question 3

The third research question asked if there was an interaction between attendance at childbirth education classes and birth planning on a primiparous woman's overall satisfaction with the childbirth experience. Table 5 shows the mean satisfaction scores of CBE and non-CBE with birth planning and non-birth planning groups. All scores indicated high mean levels of satisfaction. Although no significant results were found to support the hypothesis that CBE would have an interaction effect with birth planning on satisfaction scores, (F (1) = 2.14, ns), it is

Table 5

Mean Satisfaction with the Birth Experience Scores for Birth Planning by CBE

	CBE	*Non-CBE*
Birth planning	4.47 (n=42)	4.32 (n=37)
Non-birth planning	4.20 (n=8)	4.50 (n=8)

interesting to note that the lowest mean satisfaction score (4.20) was for the CBE/non-birth planning group, and the highest mean satisfaction score (4.50) was for the non-CBE/non-birth planning group.

Other Findings

Data were also analyzed for differences in satisfaction scores based on other factors of the labor as measured by additional questions included in the survey used for the overall study, but not included originally as part of this study. Some very interesting differences were found in mean satisfaction scores based on several factors. Results of t-tests are displayed in Table 6. For those women who perceived that their birth had gone as planned, the mean satisfaction score was significantly higher than for those who felt their birth had not gone as planned. In response to the question "Do you feel your preferences were respected by the doctors/nurses in the hospital during your labor and delivery?", there were 91 subjects who answered "Yes", while only 4 women answered negatively. Although the mean satisfaction scores for these two groups were not statistically different, the mean satisfaction score for the "non-respected" group was only 3.92, the lowest mean satisfaction score found in any comparison group. Lack of significance could be due to the small number of women who comprised this group. Satisfaction scores were also statistically lower for women who experienced Cesarean section deliveries and those who had epidural anesthesia (see Table 6). There were no differences in satisfaction scores for women based on induction of labor, use of pain medication, fetal heart rate monitoring, use of forceps or vacuum extractor, or

use of episiotomy. Because of the lack of significant findings, the summary statistics for these comparisons are not presented in this discussion.

Table 6

Means, Standard Deviations, and t-test Analyses of Satisfaction with the Birth Experience Scores by Labor-related Variables

Variable	*n*	*Mean*	*SD*	*t* (*df*) *p*
Birth went as planned				
Yes	56	4.57	.42	3.73 (60.94)
No	39	4.14	.63	.000
Preferences were respected				
Yes	91	4.41	.54	1.76 (93)
No	4	3.92	.92	.081
Cesarean delivery				
Yes	20	4.09	.54	-2.8 (93)
No	75	4.47	.54	.006
Epidural anesthesia				
Yes	74	4.32	.57	-2.67 (40.17)
No	21	4.64	.45	.011

Discussion

Interpretation of Findings

The summary characteristics of the sample in the present study demonstrated heterogeneity in demographics (age, education, race, socioeconomic status, and marital status) which are consistent with the population in the mid-

Michigan community in which the study was done. However, in each of the comparison groups, the demographic characteristics overall were similar in their distribution among groups. Only primiparous women were included in the study, which represented only a portion of the women delivering in the community. It is difficult to compare this sample to the samples used in other research because, as previously discussed, some samples were not described at all and comparison groups were lacking in much of the research about birth planning, CBE, and childbirth satisfaction. When examining the samples in research studies specifically addressing birth plans, it is again inappropriate to compare findings about demographic characteristics since they were either incompletely presented (Ekeocha & Jackson, 1985) or were dissimilar to this study sample (Moore & Hopper, 1995; Springer, 1996).

In this study of 95 subjects, 19% had written birth plans, 64% had verbal-only birth plans, and 17% had no birth plans. Again it is impossible to evaluate these findings to validate if they are "typical" of expectant primiparous women, since none of the existing literature presented data about the numbers of women who voluntarily engaged in birth planning.

No differences were found in satisfaction scores for any of the comparison groups used to answer the research questions, possibly due somewhat to the lack of variability within the sample. Satisfaction scores were on average quite high, ranging from 2.6 to 5.0, with an overall mean for all subjects of 4.39 and a median of 4.50 on a scale of 1 to 5, with 5 indicating high levels of satisfaction with the

childbirth experience. Women's satisfaction has been shown to be highly affected by how they were treated during their labor experience and if they felt they were respected (Green et al., 1990; Simkin, 1991). For the subjects in this study, only four women felt that their preferences were not respected, and although the satisfaction scores were not statistically different from those women who reported feeling respected, those who were not respected had lower mean satisfaction scores (3.92 compared to 4.41). Therefore, the high levels of satisfaction with the childbirth experience which were found in this study may be reflective of the quality of care provided to women delivering in the hospitals in the study community. With or without CBE or birth planning, women found their childbirth experiences to be very satisfying, suggesting that they were treated with respect, and that they felt they received the care they desired and needed. This also suggests that women received care that met their expectations for their experiences.

Another factor that may have contributed to the high satisfaction scores was the population of women who were used as subjects. Satisfaction with childbirth has the potential to be confounded by the outcome of the experience, whether a healthy mother and baby resulted from the delivery or not. It is necessary to note that all women in the study had surviving infants, which excluded deliveries with extremely poor outcomes. Additionally, the sample was one of convenience, which prevents conclusions to be drawn about the women who refused to participate. It is possible that women who were dissatisfied with their care refused to participate, or were not contacted, leaving only those with higher satisfaction levels to respond to

the survey.

One of the limitations identified as having the greatest potential impact on the study findings, was that there was not a more in-depth assessment of the extent of the birth planning that was done for each of the subjects. As discussed in birth planning literature, there are many components of birth planning, including education (Carty & Tier, 1989; Ekeocha & Jackson, 1985; Moore et al., 1995), evaluation of values, cultural practices, and goals (Carty & Tier, 1989; Ekeocha & Jackson, 1985; Way, 1996), improvement of communication and establishment of a mutual partnership in decision making (Carty & Tier, 1989; Ekeocha & Jackson, 1985; Moore et al., 1995; Way, 1996), and others. Subjects were asked only if they had a written birth plan or if they had discussed their options and preferences with their health care provider during the prenatal period. If there had been more direct and specific evaluation of the level of birth planning, the presence of the various components of birth planning, and the perceived effectiveness of the process, there may have been a difference in satisfaction scores for those women who had complete and effective birth planning as compared to those with incomplete or no birth plans.

When examining the data related to the interaction effect of CBE and birth planning on satisfaction with childbirth, it was very surprising to find that the women with the highest satisfaction scores were those with no CBE and no birth planning, although these results were not statistically significant. Demographic characteristics and features of the labor process experienced by this group ($\underline{n}$=8)

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were explored to find some explanation for this unexpected finding. Demographics were essentially the same as the rest of the sample, with the typical subject in this group being about 27 years old, Caucasian, married, had slightly more than 14 years of education, worked full-time, and had an annual household income of more than $20,000. No common features of the labor experience were identifiable as being correlated with their high satisfaction scores. One could postulate that women who were not educated about the childbirth process through CBE classes, or those that never really "planned" the experience, would have fewer expectations, resulting in higher satisfaction scores related to less disappointment with expectations that were not met.

For those women who had CBE but did not have a birth plan, the mean satisfaction score was the lowest of the comparison groups in the analysis of the interaction of CBE and birth planning. Although not statistically different, these lower scores may possibly be attributed to the fact that the women in the CBE/non-birth planning group had knowledge of various options of care, but never discussed which options were mutually acceptable to themselves and their care providers. The lower satisfaction scores may be a result of unmet expectations during the labor and delivery process, where the woman wanted certain options that were not offered by her provider.

In several discussions of birth planning in the literature, authors (Lothian, 1993; Moore & Hopper, 1995; Zwelling, 1996) mentioned the possibility that "birth planning" was something that some hospitals and health care providers

offered to present the illusion that expectant parents were given choices in their birth experiences. Lothian discussed that the only real option that many expectant women have is where they will deliver and who their provider will be. These concepts may have had some effect on the outcome of this study. Most women were highly satisfied with their birth experiences, which may in part have resulted from the way they were socialized and educated prior to their deliveries. Most women are educated about their childbirth options, either through CBE, their providers, or friends and family members. This routine education concerning childbirth is directed in most cases toward the usual "options". In actual practice (based on 18 years of clinical labor and delivery practice by this author), few women actually request special options for their labor and delivery care. When women have been socialized to the childbirth experience in this manner, it is much easier to meet a woman's expectations for her childbirth when it is the usual and standard practice that she is expecting as *her* "option" for childbirth.

The measures that were used to arrive at satisfaction scores may also have resulted in the lack of differences in satisfaction among the birth planning and non-birth planning, and CBE and non-CBE groups. Questions from the satisfaction scale included a few measures of global satisfaction with the experience, such as "Overall my labor and delivery was a good experience" and "I feel disappointed in the delivery experience I had" (reverse scored). Many other questions however, measured other perceptions, such as feelings that the delivery made the woman proud of herself, or gave her feelings of accomplishment, or that giving birth was

satisfying to her. Additional questions in the scale addressed her perceptions of her own performance in labor or her tolerance of the labor pain. Although these aspects of the labor and delivery experience have been found to be associated with satisfaction with childbirth, perhaps these measures are not directly related to CBE and birth planning, and do not adequately reflect the effect that birth planning or CBE have on a primiparous woman's satisfaction with her birth experience.

One other benefit of birth planning that was supported in the literature, was that birth planning increased the clients' decision making abilities (Ekeocha & Jackson, 1985; Moore et al., 1995; Springer, 1996). Active participation in decision making was, according to several authors (Brown & Lumley, 1994; Seguin et al., 1989; Simkin, 1991), highly related to satisfaction with the birth experience. In this study, decision making ability and participation in the process were not concepts that were explored as outcomes of the birth planning process, or as components of the satisfaction scale. This may also have had an effect on the lack of differences in satisfaction scores for birth planning and non-birth planning groups. If participation in decision making had been assessed, women who felt more involved in decision making may have demonstrated greater satisfaction with their experiences.

The remainder of this discussion related to the study findings does not address the questions that were originally proposed for this study, however, the additional findings do have bearing on the interpretation of the associations among birth planning, CBE, and satisfaction with the birth experience. The use of various

procedures, types of analgesia and anesthesia, and the method of delivery, whether vaginal or Cesarean section, have been suggested as factors that influence overall childbirth satisfaction (Green et al., 1990; Seguin et al., 1989). This was supported, in part, by the results of this study. Differences in satisfaction were found for women who had Cesarean section deliveries and those who had epidural anesthesia. Other procedural factors such as induction of labor, use of pain medication, fetal heart rate monitoring, use of forceps or vacuum extractor, or use of episiotomy were not found to affect satisfaction. The lower satisfaction scores for the Cesarean section group could be attributed to the feelings of loss the women may have experienced by not having a "normal" delivery, and the sense of failure that many women express that they "failed" to deliver vaginally. Lower satisfaction scores for women with Cesarean deliveries may also suggest that their expectations for a spontaneous vaginal delivery were unmet.

The findings that women without epidural anesthesia were more satisfied with their childbirth experiences supports the mastery model as presented by Humenick (1981). Epidural anesthesia, in most cases, provides the most effective pain relief for labor and delivery, but these findings suggest that relief of pain may not be the factor that is the most highly related to a woman's satisfaction with the childbirth experience. Some of the questions in the satisfaction scale related specifically to feelings of self-control, such as "I feel good about how I handled myself during labor and delivery" and "I have regrets about how I did in labor"(reverse scored). Women who had epidurals may have had lower satisfaction

scores because of feelings of "failure" to tolerate labor pain without the use of anesthesia. Lower satisfaction scores for women with epidural anesthesia may also have resulted from the epidural experience not being what they had expected, either by not providing the pain relief they expected, or by producing sensations (from the epidural itself) that they did not like.

The additional procedural variables, those of induction of labor, use of pain medication, fetal heart rate monitoring, use of forceps or vacuum extractor, or use of episiotomy were not found to have an effect on satisfaction with the childbirth experience. This could be explained, at least in part, by the notion that these procedures are now considered as the "normal procedures" used during almost all labors and deliveries. When women have been socialized into accepting these procedures as a normal part of their labor and delivery expectations, their actual birth experiences have greater potential to be congruent with their expectations, thereby not affecting their perception of satisfaction with the birth experience.

When subjects were questioned about whether they felt their births had gone as planned, a significant difference in satisfaction scores was found between women who answered "Yes" and those who answered "No", with those answering "No" reporting lower satisfaction scores. This finding suggests that women who felt that their birth experiences were congruent with their expectations were more satisfied that those whose expectations were not met.

The findings of this research, although unable to give direct evidence in support of the proposed relationships among CBE, birth planning, and satisfaction

with the birth experience, do suggest that a relationship may exist between the congruence of a woman's expectations of her birth experience and the actual event, and her overall satisfaction with her childbirth. Although most women conceivably plan for a short labor with manageable levels of pain, resulting in a normal spontaneous delivery, not all labors and deliveries result in this idealistic outcome.

Findings suggest that women who are educated about possible complications and use of various procedures may enter labor and delivery with a more realistic plan and expectations, and less potential for disappointment. Therefore, women should be adequately educated and prepared through childbirth education classes, counseling, and birth planning for the possibility of a Cesarean delivery, the use of analgesia and anesthesia, the use of other procedures, and the circumstances under which each of these interventions would be used. Women who are appropriately prepared in this manner may have a greater potential to achieve a more satisfying birth experience, due to having more realistic expectations, and an experience that meets those expectations to a greater degree.

Revision of the Conceptual Model

Based on the findings of this research study, the conceptual model adapted from King's theory of goal attainment could be revised so that the transaction of interest would be providing a woman with a childbirth experience congruent with her expectations. This implies that the expectant woman has realistic expectations for her childbirth, and the health care team works with her to meet those expectations, while still providing safe and effective care. CBE and the

development of a birth plan would be strategies that could be used to assist expectant women to develop realistic expectations which could impact the occurrence of the transaction and, in turn, the achievement of the goal of satisfaction with the birth experience (See Figure 2). Other factors that can also affect the transaction are the actions of the health care team members during the childbirth experience, and the extent of collaboration in the implementation of the birth plan. Therefore, the original model that guided this study has been revised to include factors that have the potential to ensure that the interaction of the expectant parents and the health care team results in a *transaction*, an experience that meets their expectations, and greater satisfaction with the birth experience.

Childbirth education can be an effective tool to assist the expectant woman to develop realistic expectations for her childbirth experience. CBE class content should include an objective presentation of all available options, not just the usual standard labor and delivery care. The curriculum should also include a discussion about developing a birth plan, and the rights of the expectant parents to express their preferences and desires for their childbirth experience. Through education about available options and empowering expectant parents to communicate effectively with their providers, more realistic expectations for the childbirth experience may result.

Many women do not attend formal CBE classes, and may use a variety of other sources to obtain information about labor and delivery. Health care providers can provide or suggest appropriate sources of information for women who do not

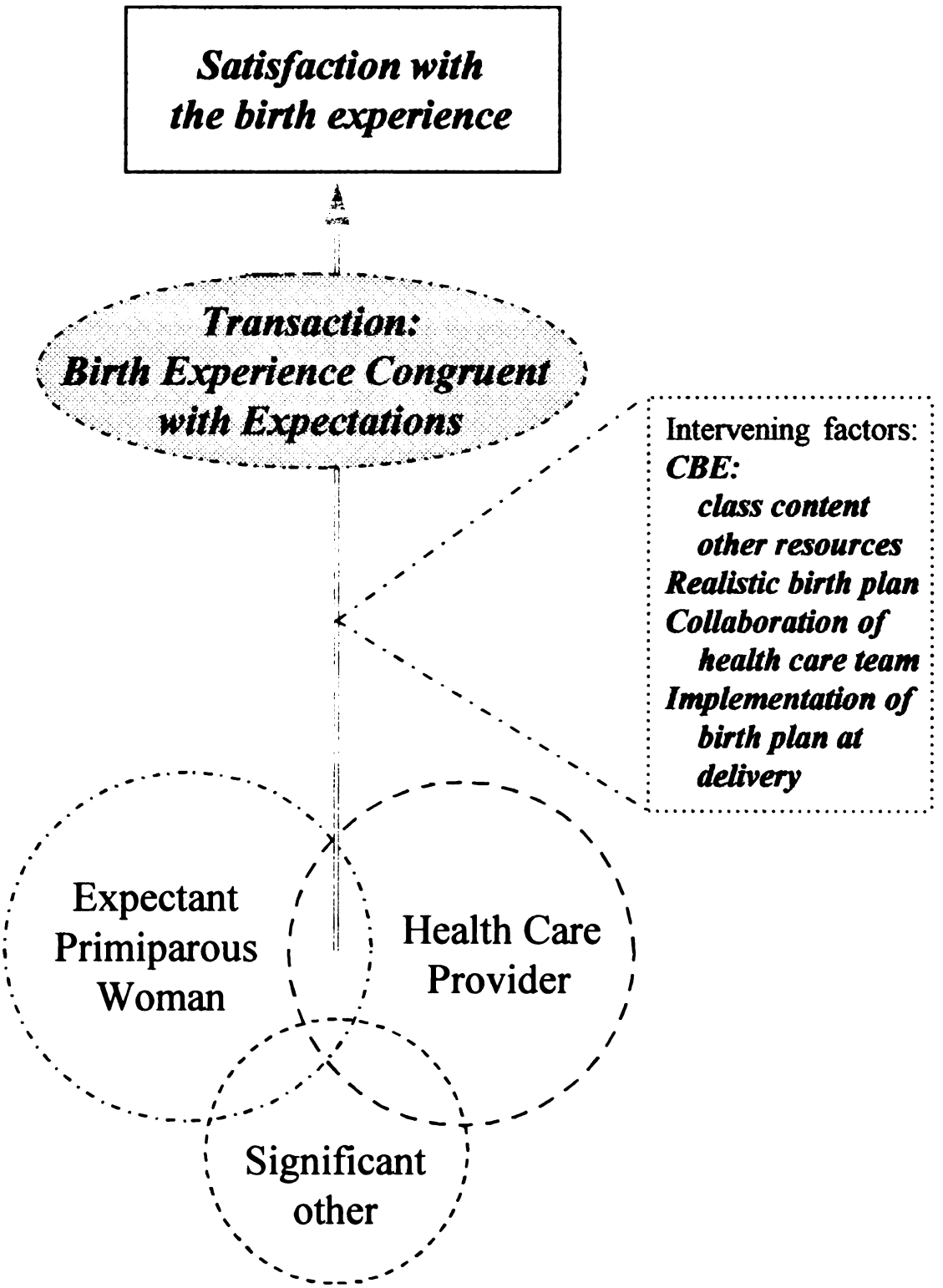

Figure 2: Revised Birth Planning, Childbirth Education, and Satisfaction within King's Theory of Goal Attainment

attend CBE classes. Providers should also discuss the labor and delivery process and available options with their clients, and correct any misinformation the expectant women may have. Through appropriate education and discussion, women without formal CBE classes may also be assisted in development of realistic expectations for their childbirth experiences.

The development of a birth plan can be employed as a strategy to help women form realistic expectations for their birth experiences. Expectant parents should be fully educated about the possibilities of a Cesarean delivery and the use of various procedures, including epidural anesthesia. While discussing these topics, the provider can explore the clients' thoughts and feelings about using these procedures. If more invasive procedures are discussed as possibilities that need to be included in the birth plan, women may feel less disappointment and more involved in the decision making process when difficult labor management choices must be made.

A third factor that may impact the transaction is the extent of collaboration of the members of the health care team. Although the original model only includes one health care provider, the primary delivering practitioner, satisfying birth experiences also can be affected by the numerous health care providers that interact with the expectant parents during the birth. The delivering provider, childbirth educators, nurses in the hospital, resident physicians, and others must collaborate and be willing to accept birth planning options, and incorporate the expectant parents' individual preferences into the care they provide. Frequently various

health care providers have different values and personal feelings that may cause conflicts among the providers and the expectant parents. Through collaboration and communication among members of the health care team, these differences can be addressed, allowing more flexibility in the options that are available for childbirth.

The final, and potentially the most important factor that can affect the occurrence of a transaction, is implementation of a realistic and effective birth plan during the labor and delivery process. In some cases, due to emergent conditions, the birth plan cannot be implemented. Although the development of complications of pregnancy may result in less satisfaction with the birth experience, a birth plan that is encouraged by childbirth educators, developed by the expectant couple and their primary provider, but ignored by the labor and delivery nursing staff or other providers, can potentially result in even greater dissatisfaction with the experience. Expectant parents may develop a realistic birth plan with expectations of implementing their plan, and may be dissatisfied with their experience if their preferences are not respected by members of the health care team.

Implications for Advanced Practice Nursing

Advanced practice nurses (APNs) who provide primary care to childbearing women may include family nurse practitioners, certified nurse midwives, OB/GYN or women's health nurse practitioners, and clinical nurse specialists. APNs in each of these roles have many opportunities to positively affect the satisfaction a woman experiences with her pregnancy and childbirth. Although there were not significant

results in this study that support the proposed associations among birth planning, CBE, and satisfaction with the birth experience, implications for advanced nursing practice can still be drawn based on the conceptual model and the study findings.

In the conceptual model based on King's theory of goal attainment, the primary health care provider can be the APN. During the interaction between the APN, the expectant woman, and her significant other, effective communication can occur, and realistic expectations for the childbirth experience can be developed. Through professional activities related to the various role characteristics of an APN, more interactions with expectant parents could potentially result in transactions, and in turn, satisfaction with the birth experience could be ensured.

The APN can provide health care services to the expectant woman throughout the childbearing cycle. However, the findings of this study can be applied most directly to nursing practice during the antepartum period and the intrapartum and immediate postpartum periods. APNs have a unique opportunity to provide direct care, including prenatal care and low risk delivery services that have traditionally been provided by physicians, as well as providing numerous other professional services that are more within the realm of nursing practice, such as education, client advocacy, care coordination, and collaboration with other providers.

In the nursing process, the APN begins her relationship with an expectant woman by assessing the client's health and emotional needs, her strengths, values, desires, and goals for her pregnancy. By beginning early in the prenatal period to

convey a sense of respect, caring, and mutuality, the APN can develop a trusting relationship with the client and her significant others. As the pregnancy progresses, the APN can explore further with the client her desires, cultural practices, and expectations for the childbirth experience. These are all important aspects of effective birth planning during the antenatal period, helping the expectant woman to develop a more realistic set of expectations for her childbirth experience.

As a clinician and practitioner, the APN can give direct care during the antepartum period, as well as functioning as the delivering practitioner, in the case of the certified nurse midwife. APNs are particularly well equipped to deal with not only the physical aspects of care, but also the psychological and spiritual aspects of the pregnancy and childbirth experience. By helping expectant parents anticipate the changes, both physical and emotional, that occur with pregnancy and the birth of a child, the transition to parenthood can be facilitated. After a thorough assessment of the pregnant client's physical and psychological needs, the APN can use her planning skills to develop an appropriate plan of care, including a birth plan, in cooperation with the expectant mother. By helping the expectant woman to develop a realistic plan and expectations, the likelihood of having a satisfying birth experience that is congruent with expectations is potentially increased.

Early screening and detection of risks factors, and appropriate care or referral to specialized providers is another function of an APN in the antepartum period. When referral to other providers is necessary, the APN can facilitate the referral by coordinating necessary care, and collaborating with the other

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practitioners to ensure continuity of care. When possible, the APN can make referrals to providers who are willing to follow the established birth plan as much as possible, while still providing the level of high risk care appropriate to the client's condition. When pregnancy complications preclude provision of care according to a previously established birth plan, it is especially important for the APN to discuss the rationale for expected procedures with the expectant woman, and help her to express her feelings related to the changes. Through the use of the APN's counseling skills, the client can be assisted to develop coping skills to effectively deal with the stresses of a complicated pregnancy. A revised birth plan can be formulated to include the necessary procedures, including Cesarean section delivery , while still preserving, as much as possible, the desires and cultural practices of the client. By developing a revised plan of care within the constraints of the necessary high risk care, the expectant mother still has the potential to experience a childbirth that meets her expectations.

In the role of educator, the APN can provide information to the expectant parents pertaining to their pregnancy, the options that are available to them in various health care settings, and the risks and benefits of different options and procedures. Throughout the pregnancy and the childbirth process, the APN can be an invaluable resource to the pregnant woman to answer questions and address problems as they may arise. The APN may also be responsible for instructing clients about the structure of the health care system, and helping them to develop enhanced communication skills, so interactions with other health care providers

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can be more effective. APNs can participate in teaching CBE classes themselves, or can direct expectant women to quality CBE providers in the community in which they live. As consultants, APNs can collaborate with CBE providers to develop and revise the curriculum of CBE classes to include the most current, research-based information. For women who are unable to attend CBE classes, APNs can direct them to appropriate sources for instructional information. Women who are well informed, can communicate effectively with providers, and have realistic expectations for the labor and delivery process may have a greater potential for having a satisfying childbirth experience.

An APN can also have an impact on satisfaction with childbirth through activities as a leader, change agent, and patient advocate. Through collaboration with other health care providers, the APN can promote the acceptance of expanded options for the childbirth process, including culturally appropriate practices that may not be familiar to many providers. APNs can share the knowledge they gain from assessments of clients with nurses and physicians providing delivery services to advocate for greater flexibility to meet patient needs and desires. In this study, all but four subjects felt that their preferences were respected by the doctors and nurses in the hospital, and overall satisfaction scores were very high. Although the services that are currently provided were found to be highly acceptable to the subjects in the study, quality of care may always be improved through more education and expanded awareness of clients' wishes and cultural differences by health care providers.

A final step in the nursing process is evaluation of the care that was provided based on the assessment of the client and the plan of care that was developed. All aspects of care should be evaluated objectively, including the content of care as well as the process by which the care was delivered. Outcomes of the childbirth process, including physical outcomes such as maternal and infant health, and psychological outcomes such as satisfaction with the experience, should continue to be evaluated to provide data that can be used to further improve care. Although in this study, significant results were not found to support the effectiveness of birth planning and CBE in promoting satisfaction with childbirth, further information is needed to elucidate the possible relationships among these variables, including the importance of an experience congruent with expectations as a factor affecting satisfaction.

Finally, the APN must employ research skills to advance the knowledge base and establish guidelines for care especially as related to birth planning, CBE, and satisfaction with childbirth. The APN can be directly involved in planning projects and collecting research data to clarify the associations among these variables and others. As more data emerge, the APN can help to disseminate research findings and assist other nurses to utilize these findings to develop new care practices.

Implications for Research

Although more research is emerging related to CBE, there is still much we do not know about the effectiveness and outcomes of CBE. Birth planning has

been explored by only a few researchers, which leaves many aspects of birth planning available for further inquiry and discovery. Satisfaction with childbirth has been examined more closely than the other two variables, but a clear conceptual definition of "satisfaction with childbirth" has not yet been articulated. In addition to the lack of a clear definition, there is insufficient evidence to indicate the factors that are essential to ensure client's satisfaction with the childbirth experience.

Study findings revealed that women who felt their births had gone as planned reported higher satisfaction scores, and women with Cesarean sections and those with epidurals had lower satisfaction scores. These findings suggest that satisfaction with the childbirth experience is more directly related to a woman's perception of her experience being congruent with her expectations than to CBE or birth planning. Although CBE and birth planning may be factors that affect the development of a woman's expectations, there was not evidence to support the hypotheses in this study that CBE and birth planning had an association with a primiparous woman's overall perception of satisfaction with her childbirth experience. Therefore, it is recommended that additional research be directed toward the role of the study variables (CBE and birth planning) in establishing more realistic expectations of the birth process, and how that affects satisfaction with the birth experience.

In further research that seeks to clarify the associations among the study variables, it is also important that a more detailed assessment be made of the birth

planning process. Without evaluation of the level and effectiveness of birth planning, it was difficult in this study to compare the outcome measure of satisfaction when there was no method to control for variability within the birth planning process itself. Further research should strive to assess for the various components of birth planning, including education about options and possible interventions including Cesarean sections, evaluation of the expectant woman's personal and cultural values and practices, and assessment of communication and decision making skills, and for the perceived effectiveness of the process. In this way, the level of effectiveness of the birth planning process on a continuum of minimal to complete birth planning, may be used to compare the degree to which expectant women develop realistic expectations, and in turn, experience satisfaction with their childbirth.

In this study, the satisfaction measures were directed toward the woman's perceptions of global satisfaction with the experience and her self-evaluation of performance and pain tolerance. The satisfaction measures that were used may need to be changed to more appropriately assess for other variables that may be more directly related to birth satisfaction, such as the woman's perceptions of feeling respected, being involved as a mutual partner in decision making, the degree of implementation of the birth plan, and the congruence of her expectations to the actual experience.

Additional research on these topics can also be expanded to include women who received CBE from other providers or through other formats, and multiparous

as well as primiparous women. It would also be interesting to determine if there are differences in satisfaction between women who receive their care from advanced practice nurses and those receiving care from physicians. Use of larger samples may also be an important factor to enhance the ability to find differences in satisfaction levels of childbearing women related to their birth experiences. The majority of women in this study were Caucasian, mid 20s in age, middle income, and well educated. Although women of ethnic minorities, women of childbearing age extremes, and those with lower incomes and less education were represented in the study population, further research is necessary to explore the factors that may affect satisfaction with childbirth in these women that may be different from the majority of women in this study.

In the current study, only English-speaking women were recruited as subjects, thereby restricting, at least in part, the cultural diversity in the sample. This limited the ability to distinguish the effectiveness of birth planning and CBE for those women who may have had desires for more non-routine, culturally-based childbirth practices. It would be interesting, but admittedly difficult considering the language barrier that would exist, to compare satisfaction with the childbirth experience for women of other cultures who had CBE and effective birth planning, to satisfaction levels of those who had none. Study results may have revealed very different patterns if women of other cultural backgrounds were included.

Summary

Existing literature suggests that there may be some associations among birth planning, CBE, and satisfaction with the birth experience. This study attempted to find data to support and clarify these associations. In this sample of primiparous women, no significant differences were found in satisfaction scores based on: (a) whether or not they had any birth plan, written or verbal, (b) whether or not they had a written birth plan or a verbal-only birth plan, and (c) whether or not there was an interaction effect of CBE and birth planning. Although results did not support the proposed associations, overall, women in this study were found to be very satisfied with their birth experiences, regardless of their birth planning or CBE status. Study findings suggested a relationship between the congruence of a woman's expectations for her childbirth experience and the actual event, and her perception of satisfaction. Childbirth is an important social, psychological, developmental, and physical event which can have long-term consequences for both parents and their infants. Ensuring a safe and satisfying birth experience for mothers and their significant others is a challenge which all health care providers of pregnant women should strive to meet. Through additional research and continued activities such as assessment, planning, education, patient advocacy, coordination of care, collaboration, counseling, and evaluation, the APN can augment the body of knowledge that currently exists concerning the effectiveness of birth planning and CBE, and their influence on satisfaction with the birth experience.

APPENDICIES

APPENDIX A

APPENDIX A

Outcomes Interview Schedule

Code #____

OUTCOMES INTERVIEW SCHEDULE

Before we begin I'd like to ask you 2 questions.

1. Is this your first baby? YES___ NO___
2. Did you have childbirth education classes with your baby born 6 weeks ago?
   YES___ NO___
   If yes, did you attend clinic classes? YES___ NO___
   If yes, how many appointments at the clinic did you have?_____
   If you went to other childbirth classes (evening, Saturdays, etc.), did you attend all your CBE classes? Yes___ NO___
   If no, how many classes did you miss?_____

If NO, go on to the next section labeled Childbirth.

CHILDBIRTH

Now that your baby has been born, we would like to hear about your childbirth experiences. Some of the questions may seem to repeat but that's our way of making sure you're hearing the questions in the same way. Let's begin.

1. YOUR NAME _____

2. HOSPITAL OF DELIVERY _____ 3. DOCTOR/MIDWIFE NAME _____

4. BABY'S BIRTHDATE _____ 5. BABY'S WEIGHT _____

6. Did your birth go as planned? YES___ NO___
   Did you have a written birth plan? YES___ NO___

7. Did you talk to your doctor/nurse in the office/clinic about your options and preferences before your delivery? YES___ NO___

8. Do you feel your preferences were respected by the doctors/nurses in the hospital during your labor and delivery? YES___ NO___

Every labor and delivery is different and may include one or more of the following procedures. Please indicate if they were a part of your experience and your comments about them.

9. MEDICATIONS (Morphine, Demerol, Vistaril, Nubain) YES 1. NO 5.
Comments:_____
_____

10. IV YES 1. NO 5.
Comments:_____
_____

11. FETAL HEART MONITOR YES 1. NO 5.
Comments:_____
_____

12. ANESTHESIA (indicate type) YES 1. NO 5.
____ local (for episiotomy)
____ epidural
____ duramorph/spinal
____ other
Comments:_____
_____

13. EPISIOTOMY YES 1. NO 5.
Comments:_____
_____

14. INDUCTION OF LABOR YES 1. NO 5.
Comments:_____
_____

15. FORCEPS OR VACUUM EXTRACTOR DELIVERY YES 1. NO 5.
Comments:_____
_____

16. CESAREAN DELIVERY YES 1. NO 5.
Comments:_____
_____

CHILDBIRTH (continued)

If you attended childbirth classes, did the information you received in class about the above events help you adequately meet your needs (if you were not in a childbirth class go on to the following question).

YES VERY HELPFUL 5.	FAIRLY HELPFUL 4.	SOMEWHAT HELPFUL 3.	NOT VERY HELPFUL 2.	NOT AT ALL HELPFUL 1.

17. How many times did you go to the hospital for false labor? _____

18. What were the reasons you went to the hospital when you were admitted for delivery? (Circle as many as apply)

1.	2.	3.	4.
Contractions	Water broke	Induction	Other

If other, specify what the reason was_____

19. How far were you dilated when you got to the hospital? _____centimeters

20. How long was your labor from the time your contractions were 5 minutes apart to the time you delivered? _____hours

21. Did you use breathing and relaxation techniques?

_Yes	_No
If yes, which ones (check all that apply)	If no, go onto question 24)

22. ___ Relaxation
___ slow paced (abdominal) breathing
___ modified paced (chest) breathing
___ patterned paced ("he-he-who") breathing
___ pushing

23. If you used breathing/relaxation please comment on how helpful the breathing and relaxation techniques were in coping with labor contractions (using the scale below).

YES VERY HELPFUL 5.	FAIRLY HELPFUL 4.	SOMEWHAT HELPFUL 3.	NOT VERY HELPFUL 2.	NOT AT ALL HELPFUL 1.

CHILDBIRTH (continued)

24. On a scale of 0-10, with 0 being "no pain" and 10 being "pain as bad as it could possibly be", how much was the most pain you experienced during labor and delivery:

0	1	2	3	4	5	6	7	8	9	10
No pain										Pain as bad as it could possibly be

25. Did you understand your choices related to pain relief during labor?
YES ___ NO ___

26. Did you have enough information to make the decision about whether or not to have medication?
YES ___ NO ___

27. Did you have enough information to make the decision about whether or not to have an epidural?
YES ___ NO ___

28. The decision about whether or not to have medication or an epidural was made:

Completely by the doctors/nurses	By you & the doctors/nurses	Completely by you
1	3	5

29. Was your partner/support person involved in your decision for pain relief? By partner/support person we mean the person who helped you the most in labor (NOT the doctor or nurse).
YES ___ NO ___
1. 5.

If yes, in what way was this person involved? _____

_____

_____

CHILDBIRTH (continued)

For the following 12 questions use the scale below and give me the number which indicates your response.

5	4	3	2	1
Very true	Fairly true	Somewhat true	Not very true	Not at all true

30. Overall, my labor and delivery was a good experience. ____
31. I feel good about how I handled myself during labor and delivery. ____
32. I feel I reacted badly to the pain of labor. ____
33. Childbirth gave me a feeling of accomplishment. ____
34. I have regrets about how I did in labor. ____
35. I feel disappointed in the delivery experience I had. ____
36. I remember labor as unpleasant and frightening. ____
37. Giving birth was satisfying to me. ____
38. I feel joyful when I remember the birth of the baby. ____
39. My recent delivery made me proud of myself. ____
40. I was aware of what was happening during labor. ____
41. I was aware of what was happening during delivery. ____

42. One question about your overall labor and delivery experience. What might you have done to be better prepared for your labor and delivery?

_____

_____

_____

_____

_____

_____

_____

CHILDBIRTH (continued)

For these five questions about help/support during labor and at home with your baby use the following scale. Give me the number which indicates your response:

5	4	3	2	1
Very true	Fairly true	Somewhat true	Not very true	Not at all true

43. I felt encouragement from my coach/support person during labor. _____
44. My coach/support person was understanding and able to calm me. _____
45. If your coach/support person helped you during labor and delivery, how did he/she help?

_____

_____

_____

_____

_____

_____

46. One last question: How long were you in the hospital after delivery _____ (Days)? How long was the baby in the hospital _____(Days)?

TIME AT HOME

The next three questions are about your partner or husband.
Do you have a partner or husband? Yes___ No___
If you do not have a partner or husband, go on to the next section on baby care (pp. 7). If answering this section, give me the number which indicates your response.

1	2	3	4	5
Very true	Fairly true	Somewhat true	Not very true	Not at all true

1. I feel close to my partner because of the labor and delivery experience ___
2. My partner spends time with the baby ___
3. It is hard to talk with my partner about the problems I have ___

BABY CARE/FIRST WEEK

Caring for your baby and yourself after delivery is something new that you needed to learn.
Please indicate how prepared you felt in caring for your baby **within the first week home**: Think back to your first week at home, how well prepared did you feel to:

	VERY WELL PREPARED	FAIRLY WELL PREPARED	SOMEWHAT PREPARED	NOT VERY PREPARED	NOT AT ALL PREPARED
1. Do daily care (bathing, cord care, circumcision care, etc.)	5	4	3	2	1
2. Soothe your crying baby	5	4	3	2	1
3. Understand the changes you are going through as a new parent	5	4	3	2	1

During the first week at home:

4. Were you breast feeding, bottle feeding, or both?

Breastfeeding	Bottlefeeding	Both
5.	3.	1.

During that first week home, please indicate how prepared you were to:

	VERY WELL PREPARED	FAIRLY WELL PREPARED	SOMEWHAT PREPARED	NOT VERY PREPARED	NOT AT ALL PREPARED
5. Feed your baby	5	4	3	2	1

BEYOND THE FIRST WEEK

1. How are you feeding your baby now?_____
2. Have you taken your baby to the emergency room? YES ___ NO ___
   2a. If yes, why:_____
   2b. If yes, how many times:_____
3. Have you taken your baby for a check-up at a clinic or doctor's office? YES___ NO___
   3a. If yes, how many times? _____
4. Has your baby been back in the hospital since birth? YES___ NO___
   4a. If yes, how many days was he/she there? _____
5. Was there any topic that you would have liked more information on related to taking care of your baby?

   _____

8

ABLE TO IDENTIFY DANGER SIGNS

I will read you two situations about life at home with babies. I will then ask you what you would do in these situations. You do not have a copy of these situations, so just listen as I read them.

1. **You and baby have been home from the hospital for 24 hours. You notice your baby's skin or whites of their eyes is the color of a banana. Although she/he is awake, her/his body feels limp when you pick her/him up. What would you do?**

   Probe: What do you think might be wrong?

2. **Your baby has had 8 liquid green stools in the last day. Although fussy yesterday, today she/he seems very sleepy. You have not been able to keep her/him awake long enough to feed her/him in the last eight hours. Her/his soft spot is sunken in. Her/his temperature is 102. What would you do?**

   Probe: What do you think might be wrong?

9

SELF CARE

Please indicate how well prepared you felt in taking care of yourself in the following areas. Think back over the time since the baby was born. How well prepared did you feel in:

		VERY WELL PREPARED	FAIRLY WELL PREPARED	SOMEWHAT PREPARED	NOT VERY PREPARED	NOT AT ALL PREPARED
1.	Recognizing if you had a fever	5	4	3	2	1
2.	Knowing what to expect from your bleeding/flow	5	4	3	2	1
3.	Knowing how to take care of your episiotomy (stitches)	5	4	3	2	1 NOT APPLICABLE
4.	Knowing how to spot breast infections	5	4	3	2	1
5.	Knowing how to care for your C-section incision	5	4	3	2	1 NOT APPLICABLE
6.	Knowing how to care for your basic needs (sleeping, resting, eating, exercise)	5	4	3	2	1
7.	Knowing about "baby blues" and feeling depressed	5	4	3	2	1

8. Since the baby was born:
   8a. Have you been to the ER for yourself? YES___ NO___
   If yes, how many times?___
   8b. Have you been to the doctor clinic for yourself? YES___ NO___
   If yes, how many times?___
   8c. Have you been back in the hospital yourself? YES___ NO___
   If yes, how many days?___

9. Was there any topic that you would have liked more information about related to taking care of yourself?

_____

_____

_____

10

RESOURCES

Indicate all resources that you have used since you brought the baby home:

1. Media
   ____ EPO Manual (or other childbirth education manual)
   ____ Books
   ____ Videos

2. People
   ____ Friends
   ____ Relatives
   ____ Neighbors
   ____ Childbirth class instructor
   ____ Doctor/Midwife
   ____ Public health nurse
   ____ Lactation consultant
   ____ Other (indicate who)_____

3. Community resources
   _____ Nurseline
   _____ WIC
   _____ Family Growth Center
   _____ Office for Young Children
   Other _____

4. How did you know about the community resources?
   Childbirth class _____ Blue folder _____ Someplace else _____

   4a. If "someplace else" please tell me where _____

DEMOGRAPHICS

8. Please answer the following questions about yourself. Remember, all answers are strictly confidential.

1. How old are you? _____ years

2. What is your date of birth? ___/___/___ mo day yr

3. What is your current marital status? (More than one number may apply)

   1. never married
   2. engaged
   3. now married
   4. cohabitating (living with partner)
   5. separated
   6. divorced
   7. widowed

4. What is your race or ethnicity?

   1. European American (white)
   2. African American
   3. Native American
   4. Asian
   5. Latino
   6. Bi/or multiracial
   7. Other_____(fill in)

5. What is the highest grade in school you have completed?

   _____
   (School grade or year in college)

6. Do you have a job (work for pay)?

   1. Yes, part-time (less than 30 hours a week)
   2. Yes, full-time (30 hours or more a week)
   3. No

7. Have you returned to work since the baby was born? YES___ NO___

8. What is your total household income before taxes this year? This should include income for all those people in the household who share expenses. (Just tell me the number next to the answer)

1. Less than $5,000 a year
2. $5,000 to $9,999 a year
3. $10,000 to $14,999 a year
4. $15,000 to $19,999 a year
5. $20,000 to $29,999 a year
6. $30,000 to $39,999 a year
7. $40,000 to $49,999 a year
8. $50,000 or more a year
9. AFDC/Food Stamps/Work First/or other program _____
10. Don't know

9. Before we end, I'd like to ask if there is anything else that really made a difference in your pregnancy or childbirth experience? One event, conversation, or bit of advice that you have used or remember?

Thank you very much for your participation. We will be sending you a $10 gift certificate in about 2 weeks. Please indicate the address to where we should send it.

_____

NAME

_____

STREET ADDRESS

_____

CITY, STATE, ZIP CODE

APPENDIX B

APPENDIX B

Informed Consent Forms

Respondent number:

Informed Consent Form

I understand I am being asked to participate in a telephone interview at six weeks following the delivery of my first child. This interview will be conducted by Dr. Linda Beth Tiedje, RN, PhD, Associate Professor in the College of Nursing at Michigan State University or a nurse from her research staff. If I agree to participate, I will be called on the telephone and asked questions about my birth, my feelings of the help I received from people who were with me during labor, the pain I experienced, outcomes for my baby, resources I have used since delivery, and (if I had childbirth classes) any thoughts I have about what I heard in my classes before the baby was born. The telephone interview will take about 30 minutes. After the interview I will be mailed a $10 gift certificate.

No risks or discomforts are expected to result from this study, although it is possible that some of the questions may make me uncomfortable. If this happens I can let the telephone interviewer know, and since she is a nurse she will talk with me and refer me for needed help if necessary.

I understand that participation in this study is voluntary and refusing to participate will not affect my future health care. I also understand that I can stop participating at any time during the telephone interviews; all I have to say is "I want to stop". I also understand I am free to only answer the questions I want to. I know I may benefit by discussing my labor and delivery with a nurse. In addition, I know this study may help nurses to better plan childbirth education for other mothers like me.

All information I give will be identified by a code number only. After all the information has been collected for this study, any information identifying names with code numbers will be destroyed. The telephone interviews will be kept in a locked file cabinet with the signed consent forms. My responses will be anonymous in any report of these research findings.

If I should have any questions concerning this study, or wish to withdraw my consent to participate, I may contact Linda Beth Tiedje, RN at 353-8685.

Signing this consent indicates that I understand and am willing to participate in the study.

Study participant_____Date_____
Parent (if participant under 18)_____
Phone number where you can be reached_____ _____
cc: Participant

SPARROW HOSPITAL

PATIENT CONSENT FORM

FOR NEW PROCEDURE, STUDY OR DRUG UNDER CLINICAL INVESTIGATION

TO: _____

Your Attending Physician is: _____M.D./D.O.
Phone Number: _____

1. Sparrow Hospital allows doctors, nurses and other trained people to work on research to study sickness and health care, and new ways to treat sickness and give care to patients. Sometimes research could cause risks to patients in the study such as becoming sicker, being hurt, or even dying. Some of these risks may be known, others are not. No promises can be made about how this study will turn out, or if it will help cure a sickness. Before you decide to be part of a research project or study, you should talk to your health care provider about all risks of being part of the study. You should also talk about any other types of treatment, or having no treatment, and the risks of each. After getting this information, you have the right decide if you want to be part of the study or not. If you do not want to be in the study, there will not be any penalty or loss of benefits to which you otherwise have a right.

2. You are invited to be part of a research study, called "Childbirth Education: Outcomes Research", being done by:

Linda Beth Tiedje, RN, PhD.	Phone: 353-8685
Millie Omar, RN, PhD.	355-8360
Rachel Schiffman, RN, PhD.	353-5072
Jackie Wright, RN, PhD.	353-8677
Alyne McCann, RN, Graduate Assistant	(517)-835-9727
Sandy Metzger, RN, Graduate Assistant	483-2615

You can agree to be part of this study or not. If you do not want to be part of this study, it will not affect your future health care or have any other penalty.

3. The purpose of this research is to study what happens to families of first babies during their birth and at about six weeks after delivery. It will compare people who have taken childbirth education classes from Expectant Parents Organization to a group who has not had classes.

4. The procedure in this project is to call you on the telephone at about six weeks after delivery and do an interview (ask you questions) about your birth experience. The

interview will have questions about your baby's birth, your feelings about the help you had from people with you during labor, the pain you had, how you and your baby are doing, resources (help) used since your delivery, and (if you had childbirth classes) thoughts about what you heard in your classes before your baby was born. The interview will last about 30 minutes.
A copy of the interview will be mailed to you about a week before you are called on the phone. This will give you time to look at the questions and think about some of your answers.

5. The purpose of the study interview is to find out if childbirth classes help people learn what they need to know for their birth and for taking care of themselves and their babies after delivery. It may help identify things that can be used to make childbirth classes better.

6. Being part of the study may benefit you by letting you talk about your birth experience and by helping you resolve some of your feelings about how your birth turned out. It may also help you and other parents who take childbirth education classes in the future. After being interviewed, you will receive a $10 gift certificate.

7. Participation in the interview should not cause any risks or discomforts, but some questions may make you uncomfortable when asking you to think and talk about your birth experience, which may have been painful or frightening.

8. You can withdraw from the research study at any time without penalty or loss of benefits to which you have a right. You can stop participating at any time during the interview by telling the nurse interviewer "I want to stop". You are free to answer only those questions that you want to answer.

9. Your doctor may stop your participation in this study at any time. The nurse interviewer may stop the interview at any time.

10. New information found during the study which may change your mind about wanting to be part of the study will be given to you.

11. All information that you give during the interview will be identified by a code number only. The telephone interviews and the consent forms will be kept in a locked file cabinet. After all the information has been collected for the study, any records identifying names with code numbers will be destroyed. Your answers will be anonymous (no one will know your answers to any of the questions) in any reporting of the research findings.

12. If you have questions about the procedure or participation in the interview, you may call:
Dr. Linda Beth Tiedje, RN, PhD.
Day Phone: 353-8685

13. If discomfort occurs as a direct result of the interview procedure used in this research study, the nurse interviewer will discuss the problem with you, and make referrals for help if needed. If available, payment from your insurance company will be requested for referral care and any other medical expenses that result because of the problem. No other compensation will be made.

If such a problem happens as a direct result of the interview procedure used in this research study, your doctor should be called. You also need to contact:

Linda Beth Tiedje, RN, PhD. Phone: 353-8685

If you have any questions about this research, your rights as a research subject, or any other concerns about being part of this study, you can contact the above.

14. Participation in this research will not cost you or your health care insurer anything extra.

15. If you agree to be part of this study and sign this consent, you may participate in this research study, which will be done by registered nurses.

Your signature below shows that:
(1) this information has been verbally explained to you, and that you have had the chance to read it and get answers to any questions you have,
(2) you understand and agree to the information,
(3) you want to participate in the project described and know about the risks that may be involved in this study,
(4) that information will remain confidential, and
(5) that you have been given a full copy of this consent form.

_____ _____

Witness Signature of Patient

_____

Date

Investigator's Statement

I acknowledge that the nature and purpose of the investigational procedure(s), the risks involved and the possibility of complications or unintended results were fully explained to the patient by me or my designee before the patient consented.

_____ _____

Investigator Date

APPENDIX C

APPENDIX C

Human Subjects Approvals

MICHIGAN STATE
UNIVERSITY

January 6, 1997

TO: Linda Beth Tiedje
A-230 Life Sciences Building

RE: IRB#: 96-183
TITLE: CHILDBIRTH EDUCATION: OUTCOMES RESEARCH
REVISION REQUESTED: 12/13/96
CATEGORY: 1-C
APPROVAL DATE: 03/19/96

The University Committee on Research Involving Human Subjects'(UCRIHS) review of this project is complete. I am pleased to advise that the rights and welfare of the human subjects appear to be adequately protected and methods to obtain informed consent are appropriate. Therefore, the UCRIHS approved this project and any revisions listed above.

RENEWAL: UCRIHS approval is valid for one calendar year, beginning with the approval date shown above. Investigators planning to continue a project beyond one year must use the green renewal form (enclosed with the original approval letter or when a project is renewed) to seek updated certification. There is a maximum of four such expedited renewals possible. Investigators wishing to continue a project beyond that time need to submit it again for complete review.

REVISIONS: UCRIHS must review any changes in procedures involving human subjects, prior to initiation of the change. If this is done at the time of renewal, please use the green renewal form. To revise an approved protocol at any other time during the year, send your written request to the UCRIHS Chair, requesting revised approval and referencing the project's IRB # and title. Include in your request a description of the change and any revised instruments, consent forms or advertisements that are applicable.

PROBLEMS/ CHANGES: Should either of the following arise during the course of the work, investigators must notify UCRIHS promptly: (1) problems (unexpected side effects, complaints, etc.) involving human subjects or (2) changes in the research environment or new information indicating greater risk to the human subjects than existed when the protocol was previously reviewed and approved.

If we can be of any future help, please do not hesitate to contact us at (517)355-2180 or FAX (517)432-1171.

Sincerely,

David E. Wright, Ph.D.
UCRIHS Chair

DEW:bed

cc: Sandra Metzger

OFFICE OF
RESEARCH
AND
GRADUATE
STUDIES
University Committee on
Research Involving
Human Subjects
(UCRIHS)
Michigan State University
232 Administration Building
East Lansing Michigan
48824-1046
517/355-2180
FAX 517/432-1171

SPARROW HOSPITAL

April 15, 1996

Linda Beth Tiedje
Michigan State University
A-230 Life Sciences Buliding
College of Nursing
East Lansing, MI 48824

RE: Childbirth Education: Outcomes Research

Dear MS. Tiedje:

I am in receipt of your research application requesting review and approval for the above mentioned protocol by the Sparrow Hospital Institutional Research & Review Committee.

This letter is to inform you that the protocol has been approved under the Sparrow Hospital Institutional Research & Review Committee Policy on Expedited Status Protocol.

Sincerely,

George S. Abela, MD, Chairperson
Institutional Research & Review Committee

TO: OB Executive Committee

FROM: Sandy Metzger, RNC, BSN
OB Nurse Clinician

DATE: March 18, 1996

RE: Research Proposal

The following information is in regard to a research study proposed by Linda Beth Tiedje, RN, PhD., Associate Professor of the College of Nursing at Michigan State University. The study involves participation by Expectant Parents Organization and Sparrow Hospital. The attached study proposal describes a research project to study the availability and outcomes of childbirth education.

My involvement in the study will be as a graduate assistant in the project, and is part of my required course work for the completion of my Masters Degree in Nursing at MSU. The focus of my graduate thesis will be the relationship between prenatal birth planning and discussion of birth options and preferences, and the patient's perception of confidence and satisfaction in the birth experience.

The research instruments included in this packet will be revised slightly to include several questions about the discussion of birth preferences with the care providers during the prenatal period, and respect for these preferences during labor and delivery.

The entire proposal for this research project is being submitted for approval to the University Committee for Research Involving Human Subjects at MSU, the Sparrow Institutional Research and Review Committee, and the Sparrow Nursing Research Committee.

I would appreciate your consideration for granting the approval of the OB department to include your patients in the study.

Thank You,

Sandra J. Metzger

Sandra J. Metzger

Approval granted:

Signature of OB Department Chair — Date 3/18/96

Signature of Family Practice Representative — Date 3-18-96

LIST OF REFERENCES

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