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Expectations of Pain Relief Utilizing Epidural Analgesia

Kelly Powell Morris
Gardner-Webb University

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Expectations of Pain Relief Utilizing Epidural Analgesia

by

Kelly Powell Morris, RN, BSN

A thesis submitted to the faculty of
Gardner-Webb University School of Nursing
in partial fulfillment of the requirements for the
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Submitted by:

Approved by:

Author's Name:
Kelly Powell Morris

Thesis Advisor's Name:
Dr. Cindy Miller

Date

Date

Abstract

This study describes patient expectations and actual pain relief reported by patients experiencing childbirth while utilizing epidural analgesia as their method of choice to reduce the pain associated with childbirth using a quantitative descriptive design. Data were collected using the Expectations of Pain Relief Utilizing Epidural Analgesia Questionnaire. The sample (N=17) consisted of first-time mothers delivering at an acute community hospital who were participants in the county's Nurse-Family Partnership Program. The questionnaire, developed by the researcher, was distributed to participants by their Nurse-Family Partnership Registered Nurse during a routine postpartum home visit during the three month study time span. The study questionnaire, instructions, and consent forms were incorporated into the packet.

The theoretical framework of Katharine Kolcaba's Theory of Comfort was incorporated in order to guide this research. Specific conceptual model concepts viewed are comfort measures, intervening variables, institutional integrity, comfort, and the metaparadigm aspect of person described as "patient" by Kolcaba.

Results of the study were inconclusive due to the small number of study participants. Further research is needed with a larger sample size, and a more diverse population of participants and organizations that utilize epidural analgesia. Further research is needed to substantiate a more conclusive understanding of patient expectations of epidural analgesia in order to increase the validity of the study.

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Chapter One

Introduction

Today's laboring patient has many options available for pain management. Many times, patients expect labor to be completely painless, regardless of the pain management technique personally chosen. Despite modernized medicine, it is often hard for the nurses to help the patient understand that labor is a natural process that will involve some amounts of pain.

In recent decades, the importance of measuring satisfaction with health care has been recognized (Hodnett, 2002). Patient views are being used by managers in health care to assess quality of care, and by policy makers to make decisions about the organization and provision of health services (Hodnett). In addition, the Joint Commission introduced a compliance guideline in 2001 designed to improve pain care for all patients (Gulliver, Fisher, & Roberts, 2008). This has prompted increasing attention focusing on women's satisfaction with pain relief during childbirth.

Background

Pain management options used by women during labor and childbirth are varied and unique to each individual. According to a September 2005 news release from the American Society of Anesthesiologists, more women in the United States are using the many varied and sophisticated pain relief options during childbirth (AORN Journal, 2006). It is suggested that 57 to 76% of deliveries in the United States used some type of regional analgesia, including epidural, spinal, or combined epidural-spinal techniques as opposed to natural childbirth relaxation techniques (AORN Journal). In addition,

narcotics were used less often as the only source of pain relief during labor (AORN Journal). With many available options for pain management during labor and childbirth, it is of concern that the chosen method(s) used will affect the maternal perception of the childbirth experience, hence affecting patient satisfaction.

Significance

Significance of the problem

Maternal satisfaction with intrapartum analgesia is often difficult to define and measure because there are no current standardized measurement scales. Of the studies viewed, some linked poor pain relief as the main reason for childbirth dissatisfaction. However, other studies linked patient satisfaction during childbirth towards other factors such as personal expectations, caregiver support, caregiver-patient relationship, and patient involvement in decision-making regarding pain options. Epidural analgesia is an increasingly popular choice for pain management and control during labor.

Background of the problem

“Satisfaction” and expectations are complex and multidimensional concepts. They involve several factors such as a positive attitude, affective response to an experience, and a cognitive evaluation of an emotional response (Hodnett, 2002). In addition, people can often be satisfied with some aspects of an experience, yet dissatisfied with others. In recent decades, the importance of measuring satisfaction with health care has been recognized and has become increasingly important. Assessments of women’s satisfaction with pain relief during labor and childbirth are of great importance to health care

providers and administrators in order to provide continuous, profitable, and best health services to clients (Hodnett).

Problem Statement

With today's modernized healthcare field trending towards quality care, laboring women demand and expect satisfying and excellent care in the delivery room. Labor is a natural process that involves pain. It is often hard to know if the patient perception of satisfying and excellent care is influenced by the pain management method(s) of choice. In essence: Are patient expectations of childbirth pain accurate, or do first time mothers often have unrealistic expectation of labor pain?

Purpose

The purpose of this study was to describe patient expectations and actual pain relief reported by patients experiencing childbirth while utilizing epidural analgesia as their method of choice to reduce the pain associated with childbirth.

Definition of Terms

Research Questions

The research questions for this study were:

1. What are patient expectations of pain relief utilizing epidural analgesia during childbirth?
2. What amount of pain relief do patients experiencing childbirth utilizing an epidural actually report?

The Expectations of Pain Relief Utilizing Epidural Analgesia Questionnaire was used to examine patient expectations regarding the amount of pain relief in which the epidural would provide in comparison to actual patient satisfaction with epidural analgesia used during labor and delivery. Information on patient age, race, educational level, employment, and marital status was also obtained.

Theory Formulation

Identification of Concepts: Conceptual Model

This research report was guided by Kolcaba's Theory of Comfort. According to Kolcaba (1995), "Nursing art is defined and a model is presented for practicing a type of nursing art called comfort care". The conceptual model concepts used in the study are comfort measures, intervening variables, institutional integrity, comfort, and the metaparadigm aspect of person described as "patient" by Kolcaba (p. 287).

Kolcaba's Theory of Comfort describes the process of comfort by nurses (Tomey & Alligood, 2006). In abstract terms, a "process" is known as a comfort measure if the outcome of that process produces enhanced comfort compared with a baseline (Tomey & Alligood). Kolcaba goes on to specifically identify comfort measures as "nursing interventions designed to address specific comfort needs of recipients. Interventions described can be in the form of physiological, social, financial, psychological, spiritual, environmental, and physical interventions" (Tomey & Alligood, p. 728).

Kolcaba uses the concept of intervening variables in her theory of comfort by suggesting that interacting forces can influence recipients' perceptions of total comfort (Tomey & Alligood, 2006). These variables consist of "past experiences, age, attitude,

emotional state, support system, prognosis, finances, and totality of experience elements” (Tomey & Alligood, p. 728).

Institutional integrity refers to the ability of the institution to promote or limit comfort (Tomey & Alligood, 2006). Kolcaba suggests that institutions should “possess qualities or states of being complete, whole, sound, upright, appealing, honest, and sincere” (Tomey & Alligood, p. 729). “The relationship between comfort and institutional integrity is recursive,” thus institutions must prevent barriers (Tomey & Alligood, p. 729).

The term comfort is defined by Kolcaba as a state which is experienced by recipients of comfort measures (Tomey & Alligood, 2006). Types of comfort are described by Kolcaba as relief, ease, and transcendence (Tomey & Alligood). “Relief is the state of a recipient who has had a specific need met, ease is defined as the state of calm or contentment, and transcendence is described as the state in which an individual rises above his or her problems or pain” (Tomey & Alligood, p. 728). In addition, comfort can be experienced in four contexts. Kolcaba describes these four contexts as: physical, psycho-spiritual, social, and environmental (Tomey & Alligood).

“Patient” is the term used by Kolcaba to describe the metaparadigm concept of person (Tomey & Alligood, 2006). The patient is any recipient of care, and can be in the form of individuals, families, institutions, or communities that are in need of health care (Tomey & Alligood).

Identification and Classification of Concepts: Middle-Range Theory Concepts

Middle range theory concepts of this study viewing patient expectations of pain management using epidural analgesia during labor are epidural analgesia, pre-

contemplation and/or expectations of pain during labor, requirements to receiving epidural analgesia, labor experience, and person.

The middle range theory concept of epidural analgesia is the use of an epidural as a pain management and comfort technique chosen for use by the laboring patient during labor and delivery. When using epidural analgesia during labor, all forms of narcotic analgesia are omitted or discontinued, thus the epidural becomes the primary method of pain control.

Pre-contemplation and/or expectations of pain during labor refers to the laboring patient's thoughts and desires regarding pain experience and control before actually experiencing labor. This concept is subjective and will vary with each patient. Some patients have a realistic expectation regarding pain "control" during labor, whereas others have an idea of being completely pain free throughout the entire process.

Requirements to receiving epidural analgesia consist of guidelines set forth by the anesthesiology practice responsible for providing epidural placement. In the institution where this study takes place there is one primary practice which consists of six anesthesiologists who provide and manage all epidural placements. Patients are required to watch a video approximately 30 minutes in length which explains the epidural placement procedure, along with risk and benefits. Consent is signed along with method of payment forms. Private insurances and Medicaid will cover epidural expenses. The video can be watched at any time during the antepartum period. Obstetric practices inform patients of this procedure. A video can be obtained from the obstetric practices or from the anesthesiology office. In addition, videos are available for patients to view at home.

The middle range concept of labor experience encompasses each patient's thoughts and feelings regarding pain control during labor and delivery. This concept includes satisfaction with comfort during labor while utilizing epidural analgesia.

The metaparadigm concept of person will refer to demographic factors of the primiparous study participants. Demographics include patient age, race, educational level, employment, and marital status

Theoretical and Operational Definitions

The theoretical and operational definitions are addressed in Table 1.

Table 1: Conceptual Model Table

Conceptual Model Concept	Theoretical Definition	Mid Range Theory Concept	Operational Definition (Hypothesis of Empirical Indicators)
Comfort Measures	Process of comfort by nurses. A “process” is known as a comfort measure if the outcome of that process produces enhanced comfort compared with a baseline	Epidural Analgesia	Survey using Likert type questions ranging from 1 (Very dissatisfied) to 5 (Very satisfied) regarding satisfaction with epidural analgesia usage.
Intervening Variables	Interacting forces can influence recipients’ perceptions of total comfort. These variables consist of past experiences, age, attitude, emotional state, support system, prognosis, finances, and totality of experience elements	Pre-contemplation and/or expectations of pain during labor	Questions regarding Pre-conceived thoughts of the “intensity” of labor pain.
Institutional Integrity	The ability of the institution to promote or limit comfort	Requirements to receiving epidural analgesia	Guidelines set forth by the institution for receiving epidural analgesia.
Comfort	A state which is experienced by recipients of comfort measures	Labor experience	Survey using Likert type questions ranging from 1 (Very dissatisfied) to 5 (Very satisfied) regarding satisfaction with epidural analgesia usage.
Patient (Person)	The patient is any recipient of care, and can be in the form of individuals, families, institutions, or communities that are in need of health care	Laboring Patient/ Study Participant (Person)	Demographics

Chapter Two

Review of Literature

The review of literature explores the relationships of different types of pain management therapies used during labor, and the patient's perception of personal expectations with their labor experience. In addition, patient satisfaction with the care received during childbirth is specifically viewed in relation to the chosen methods of labor pain management.

Epidural Analgesia

A study by Leighton and Halpern (2002) viewed the effects of epidural analgesia on labor, maternal, and neonatal outcomes. This study was a systematic review conducted by the Department of Anesthesiology at Cornell University, New York, NY; and the Departments of Anesthesiology and Obstetrics and Gynecology at the University of Toronto, Ontario, Canada. Epidural analgesia is commonly chosen by laboring women as a form of pain management during childbirth in today's modernized healthcare field, particularly in the United States (Leighton & Halpern). Randomized controlled trials and prospective cohort studies in which epidural analgesia was compared with parenteral opioids in labor were used in this study. Fourteen studies which enrolled 4324 women met inclusion criteria. Inclusion criteria included studies published in English between January 1, 1980, and February 1, 2001. The study samples included only healthy women with uneventful pregnancies. Of the fourteen studies, ten studies enrolled only nulliparous women; one study enrolled only multiparous women, and three studies enrolled women of mixed parity. The incidence of cesarean delivery did not differ

significantly between women receiving epidural analgesia (8.0%) and women receiving parenteral opioids (7.7%). Although no specific numerical data are given, mothers receiving epidural analgesia had lower pain scores and were more satisfied with their labor analgesia. The incidence of poor one minute apgar scores and the need for naloxone were higher in the parenteral opioid groups. The research design of this study is descriptive retrospective reviewing studies over a twenty-one year time span. This study is useful in evaluating pain perceptions in laboring women who receive epidural analgesia versus parenteral opioids administration. Both epidural analgesia and parenteral opioids are routinely used as means to control pain experienced during labor and childbirth in labor and delivery units across the United States. This study, however, does not view patient satisfaction perceptions in relation to nursing care.

A study by Stark (2003) explored women's preferences for epidural analgesia as a form of pain management during labor. This study also assessed factors influencing epidural desire and usage during labor. The study purpose comes from an increasing number of women who prefer, and use epidural analgesia for pain management during labor and childbirth. This descriptive study is a secondary analysis of a longitudinal study conducted by Stark in the years 2000 and 2001. Data in the original study were collected during a nine month period in southwestern Michigan. All 57 study participants were attending prenatal classes during their third trimester of pregnancy, with 94.6% delivering at one tertiary hospital where epidurals were available to all laboring women regardless of ability to pay. The remaining three participants who did not deliver at the tertiary hospital delivered at three other hospitals. The average age of study participants was 29.1 years, and composed primarily of Caucasian (94.7%), married (93%),

primigravidas (89.5%). In addition, 94.7% of study participants had attended some amount of college. One study participant withdrew from the study following a preterm birth. The study concluded that the study participants enrolled in the prenatal classes trended toward not preferring epidural analgesia during labor. However, the majority of participants had never experienced labor. Approximately 47% of the concluding 56 study participants opted for epidural analgesia when labor finally arrived. Twenty percent had an unscheduled cesarean section. In addition, demographic variables were associated with greater prenatal preference for using epidural analgesia during labor. Women with higher parity, more education (bachelor/graduate degrees versus high school or college attendance), and higher annual income (50,000 or higher annually) had a higher preference for using epidurals during labor. In addition, age, employment, marital status, and race were not significant factors related to prenatal preferences for epidural usage. Although performed in the United States, this study has its limitations of small sample size and a population of primarily primigravidas who had never experienced labor. In addition, all women in the sample were taking prenatal class which could influence their pain management preferences before labor.

A study by Henry (2004) examined the use of, and satisfaction with, pain management methods provided to women during labor and delivery. The study was conducted at a teaching hospital in Sydney, Australia from October 2002 until January 2003. There were 496 women who participated in the study, all ages 16 and over, with the mean age being 32 years old. Seventy-three percent of participants had a normal vaginal delivery. Ninety-three percent of the women used at least one form of pain management, with 74% using two or more methods. Forms of pain management used

were: “natural” (non-pharmacological, massage, hot packs, bath/shower, relaxation, etc.), nitrous oxide, pethidine, epidural, and/or local infiltration of the perineum. Seventy-four percent of the participants used natural methods of pain relief, 54% used nitrous oxide, 44% used epidural analgesia, 38% used local infiltration of the perineum, and 27% used pethidine. Natural methods as a sole source of pain management were used by only 9.3% of study participants. A questionnaire type survey was given in the first 24 hours after childbirth, and was to be completed within one week. There was a 69% response rate to the study questionnaire. The self-administered survey contained 46 items that were separated into demographic information (seven items), intrapartum pain management use and satisfaction (27 items), and knowledge and attitudes toward intrapartum pain management (12 items). A five-point Likert scale was used with ratings from “very useful” to “not at all useful” and “very satisfied” to “not at all satisfied”. In addition, demographic and intrapartum information was collected from each participant’s medical record. Two hundred and fourteen women were excluded from the study due to elective cesarean sections, non-English speaking, and poor neonatal outcomes. Conclusion of this study found that labor pain was worse or much worse than expected for 55% of participants, yet 72% of the participants were very or quite satisfied with their overall pain management. Epidural analgesia had the highest satisfaction scores, with 89% of participants describing it as being very useful. This study agrees with the study done earlier by Hodnett in 2002, that the type of pain management used is not the only determinant to a satisfying childbirth experience. Other determinants are personal expectations, support from caregivers, quality of caregiver-patient relationship, and involvement in decision making. Like previous studies, this study by Henry was

performed outside of the United States in Australia, where labor management could be somewhat different.

Patient Expectations

A study by Hodnett (2002) reviewed 137 reports describing multiple factors that influence the evaluation of women's childbirth experience. The study evolved from today's modern healthcare field striving to meet consumer expectations. Laboring women demand satisfying and excellent quality care, thus making labor and delivery options a very competitive field. Of the 137 reports, 68 were excluded in the review. Exclusion of the 68 reports was due to non-relevant purposes and/or no data related to patient satisfaction. Factors specifically reviewed were pain and pain relief, personal expectations, support from caregivers, quality of caregiver-patient relationship, and involvement in decision making. Study reviews suggest that the quality of each woman's relationship with her caregivers is a constant and strong predictor of childbirth satisfaction. The relationships of pain and analgesia variables were more complex to suggesting satisfaction because women with longer, difficult, and complicated labors were more likely to receive analgesia. In addition, the four factors of personal expectations, amount of support from caregivers, quality of the caregiver-patient relationship, and involvement in decision making appear to be so important that they override the influences of age, socioeconomic status, ethnicity, childbirth preparation, physical birth environment, pain, immobility, medical interventions, and continuity of care, when women evaluate their childbirth experiences. The author points out, however, that the roles of pain and analgesia on childbirth satisfaction should not be ruled out or

ignored. This study was conducted in Ontario, Canada. The author points out that few studies have been conducted that include satisfaction as an outcome of maternity care. The study also suggests that pain management is not the only factor that accounts for a satisfying childbirth experience. The study was a useful tool in evaluating satisfaction as a general contributor to the childbirth experience.

A study by Christiaens and Bracke (2007) viewed multiple determinants to childbirth satisfaction. The study examined fulfillment of childbirth expectations, personal control, and self efficacy for their associations with childbirth satisfaction in a cross national study. Belgian and Dutch women were included in this study. Both cultures share the same language, geography, and political system, and have a common history. However, the health care systems in these countries differ drastically in relation to maternity care. The Belgian maternity system follows a medical model, whereas the Dutch system is geared more towards the midwifery model. All hospitals in the cities of Ghent and Tilburg were asked to participate in this study. In Ghent, three out of four hospitals agreed to participate, and the two hospitals in Tilburg also agreed to participate in the study. In addition, home births were viewed by incorporating independent midwifery practices in the study. It is pointed out that most births occur in the hospital setting. This study used two questionnaires filled out by 605 women. The first questionnaire was filled out at 30 weeks gestation, and the second within two weeks after giving birth. Of the 605 questionnaires, 560 were able to be analyzed. In essence, 560 women filled out both prenatal and postpartum questionnaires completely. Both questionnaires were similar, with the same concepts being measured before and after birth. Concepts being measured were general satisfaction with childbirth, self, baby,

midwife, physician, and partner. Satisfaction was measured by the Mackey Childbirth Satisfaction Rating Scale which included the six concepts of satisfaction. These concepts were used to reflect the multidimensional nature of childbirth satisfaction. Women over the age of 18 were invited to participate in the study by independent midwives and obstetricians during prenatal visits from September 2004 until September 2005. Thus, a convenience sample was used for this study. The design of this study is descriptive longitudinal. Longitudinal designs examine changes in the same subjects over an extended period (Burns & Grove, 2005). This study, unlike others, viewed perceptions of satisfaction prenatally and in the postpartum period. In addition, the study occurred over a period of one year. Study results suggest that overall participants reported a high level of childbirth satisfaction (mean 4.21 on a 5 point scale). The concept of satisfaction with self related aspects of childbirth ranked the lowest with a mean score of 3.81; and satisfaction with partner related aspects of childbirth ranked the highest with a mean score of 4.65. This study, conducted in the Belgian and Dutch culture, has its limitations due to not being conducted in and including the United States laboring culture. However, women in the United States use both physician and midwifery services, with the majority giving birth within the hospital setting, and all of these areas are included in this study.

The review of literature exploring the relationships of epidural analgesia as a form of pain management utilized during labor, and the patient's expectations and perceptions of satisfaction with the amount of pain experienced during labor suggest that labor, pain expectations, and pain perceptions are a complex, multidimensional experience. The childbirth experience is different for each individual woman, thus it is hard to pinpoint exactly one single cause that makes labor a positive or negative experience. In reviewing

studies pertinent to the subject, it is clear that there have been very few studies conducted that include both variables of epidural pain management and patient expectations as outcomes of labor care. Most of the published literature deals with epidural pain management or patient expectations, but not linking both variables together. In addition, the studies viewed seem to suggest that although pain management techniques trend toward making labor a more pleasurable experience, there are many other possible factors that contribute to a satisfying labor experience, and satisfaction with the care received. Other factors affecting patient satisfaction are noted to include: personal expectations about the labor experience, amount of support from caregivers, quality of the caregiver-patient relationship, and patient involvement in decision making. In addition, no more current documents were found in the review of existing literature.

Chapter Three

Method

Subjects, Sampling, Setting

Data for this research were obtained anonymously for a three month time period during April, May, and June, 2010. Data were obtained by using a convenience sample of qualifying candidates delivering vaginally at a community hospital in the southeastern United States, with an annual birth rate of approximately 1100 live births per year. In addition, participants were also enrolled in the Nurse-Family Partnership program through a local Health Department. A total of 166 women delivered vaginally during the study period. A total of 28 women who gave birth vaginally to vertex, singleton, live babies of at least 36 weeks gestation; who were able to speak English; and who were enrolled in the Nurse-Family Partnership program qualified for the study. Of the 28 women who met the criteria for inclusion in the study, there were 17 women who actually participated by entirely completing all questionnaire details. From these numbers, there was approximately a 61% response rate.

For the three month period, after obtaining consent, a survey was given to qualifying participants during a postpartum Nurse-Family Partnership home visit. A pre-addressed return envelope was also given with instructions to seal and give to their nurse who would then place it in the researcher's work mailbox. From the researcher's mailbox, the Nurse-Family Partnership administrative assistant separated consents and questionnaires into two separate stacks to allow anonymity. Questions focused on expectations of pain relief that the epidural would provide, and patient satisfaction with the actual pain relief provided during labor by the epidural. The major variable of interest

for this study was the patient's expectations of labor pain before giving birth compared with the amount of actual pain relief experienced during labor. Demographic study variables include patient age, race, educational level, employment, and marital status.

This study, which viewed expected level of pain relief using epidural analgesia during labor and actual pain relief experienced was performed using a quantitative descriptive design. The purpose of a descriptive study is to explore and describe some type of phenomenon in a real life situation (Burns & Grove, 2005). This design also aims to generate new knowledge about concepts or topics which are limited or have no research. No attempt is made to control or manipulate the situation. Descriptive research aims to describe concepts and attempts to possibly identify relationships that provide a basis for further quantitative research and theory testing (Burns & Grove). This study viewed patients' expectations of epidural analgesia and then looked at actual satisfaction with the pain relief which was obtained.

Qualified participants for this study were primiparous women of all ages, who gave birth vaginally to vertex, singleton, live babies of at least 36 weeks gestation during April, May, and June, 2010; and who were also able to speak English. Women giving birth via cesarean section were excluded in this study. It was felt that these women give birth in a completely different environment with other contributing pain factors. In addition, these women require a different type of nursing care, with the nursing role being much different than that of a routine vaginal delivery.

Instruments

The instrument used in this study was the Expectations of Pain Relief Utilizing Epidural Analgesia Questionnaire, developed by the researcher. This questionnaire was reviewed using two experts in the field of maternal-child nursing to determine face validity. The Nurse-Family Partnership nurse distributed a packet to those meeting eligibility criteria during a routine postpartum home visit during the three month study time span. The study questionnaire, instructions, and consent forms were incorporated into the packet. There were three sections of questions used in order to obtain the study results. The first section included demographic information, the second section viewed patient expectations of the pain relief that an epidural would provide them with during labor, and the third section consisted of questions regarding adequacy of the amount of pain relief actually experienced during childbirth while utilizing an epidural. The first section of the questionnaire required the participant to fill out demographic information. The second section consisted of three questions which used a Likert type scale, with results ranging from 1 to 5. Lower numbers indicated lower expectations that the epidural would provide a great amount of pain relief during labor. The higher numbers indicated a high amount of pain relief was expected to be provided by the epidural during labor. The third and final section consisted of four questions related to actual satisfaction with the pain relief which the epidural provided during labor. This section also used a Likert type scale with lower numbers indicating less satisfaction with actual pain relief, and higher numbers indicating a greater amount of satisfaction with the actual pain relief provided by the epidural during labor.

Procedures – Ethics, Data Collection

Ethical considerations were taken into account throughout the study. Participants were educated about the study using all aspects of informed consent (Appendix B), with specific attention given to voluntary participation. The questionnaires were returned to the research in sealed envelopes with consent forms separated from the actual questionnaire. There was no type of treatment or intervention being used in this study. All mothers meeting eligibility criteria were included in the study. Teens were able to ethically be included in this study because they are considered emancipated minors.

Data Analysis

Data were analyzed with descriptive statistics and frequency distributions. The data were entered into and analyzed on a personal computer using the SPSS Data Package, Version II.

Chapter Four

Results

Tables and Figures

The research sample consisted of 17 participants. The following tables, 1-12, include the descriptive data obtained by the Expectations of Pain Relief Utilizing Epidural Analgesia Questionnaire. The results of the descriptive statistics concluded that the age of participants ranged from 14-24, with the majority (29.4%) being 21 years old, and secondly (23.5%) being 18 years old. Education levels vary from 9th grade to 2 years of college, with the majority (35.3%) of study participants having 12 years of education. None of the participants were college graduates. Approximately 64.7% of study participants were Caucasian, and 17.6 % were African American. In addition, 82.4% of participants were unemployed, and 70.6 were unmarried. Tables with frequencies and percentages can be viewed below.

Table 1			
Frequencies and Percentages: Age at the time of delivery.			
	Client Age	Frequency	Percent
Valid	14	1	5.9
	16	1	5.9
	17	1	5.9
	18	4	23.5
	19	2	11.8
	21	5	29.4
	23	2	11.8
	24	1	5.9

Table 2
Frequencies and Percentages: Race of the birthing mother

Race		Frequency	Percent
Valid	White/Caucasian	11	64.7
	African American	3	17.6
	Latino	2	11.8
	Other	1	5.9
	Total	17	100.0

Table 3
Frequencies and Percentages: Educational Level

Educational Level		Frequency	Percent
Valid	9	1	5.9
	10	2	11.8
	11	3	17.6
	12	6	35.3
	13	3	17.6
	14	2	11.8
	Total	17	100.0

Table 4:
Frequencies and Percentages: Employment Status

Employment		Frequency	Percent
Valid	Yes	3	17.6
	No	14	82.4
	Total	17	100.0

**Table 5:
Frequencies and Percentages: Marital Status**

Marital Status		Frequency	Percent
Valid	Single	12	70.6
	Married	5	29.4
	Total	17	100.0

**Table 6:
Frequencies and Percentages: Patient expectations: Felt an epidural was a good option for pain management during labor**

		Frequency	Percent
Valid	Agree	6	35.3
	Strongly Agree	11	64.7
	Total	17	100.0

**Table 7:
Frequencies and Percentages: Patient expectations: Feeling that the epidural would take away ALL of the pain during childbirth**

		Frequency	Percent
Valid	Strongly Disagree	1	5.9
	Disagree	6	35.3
	Neither	1	5.9
	Agree	4	23.5
	Strongly Agree	5	29.4
	Total	17	100.0

**Table 8:
Frequencies and Percentages: Patient Expectations: Receiving adequate education regarding epidural analgesia before being in labor**

		Frequency	Percent
Valid	Disagree	1	5.9
	Agree	9	52.9
	Strongly agree	7	41.2
	Total	17	100.0

Table 9:
Frequencies and Percentages: Patient Satisfaction: Overall satisfaction with pain relief provided by the epidural during childbirth

		Frequency	Percent
Valid	Dissatisfied	1	5.9
	Somewhat satisfied	3	17.6
	Satisfied	3	17.6
	Very satisfied	10	58.8
	Total	17	100.0

Table 10:
Frequencies and Percentages: Patient Satisfaction: Actual pain experienced in comparison to expectations

		Frequency	Percent
Valid	Much worse	1	5.9
	Worse	3	17.6
	About the same	2	11.8
	Better	3	17.6
	Much better	8	47.1
	Total	17	100.0

Table 11:
Frequencies and Percentages: Patient Satisfaction: Feeling of control over pain while using an epidural

		Frequency	Percent
Valid	Strongly Disagree	1	5.9
	Disagree	1	5.9
	Agree	9	52.9
	Strongly agree	6	35.3
	Total	17	100.0

Table 12:
Frequencies and Percentages: Patient Satisfaction: Would choose to use an epidural for pain management if laboring again.

	Frequency	Percent
Valid Disagree	2	11.8
Neither	2	11.8
Agree	3	17.6
Strongly agree	10	58.8
Total	17	100.0

Chapter Five

Discussion

Interpretation of Findings

The sample (N=17) completing the questionnaire was divided regarding thoughts that the epidural would take away all pain associated with childbirth. Approximately 59% of participants were overall very satisfied with the pain relief which the epidural provided. In addition, 47.1% of participants reported that pain during childbirth was “much better” than expected.

Implications for Nursing

This research will be beneficial to nursing and the public to address the issue of pain management during childbirth. It is very difficult for labor and delivery nurses to take care of the laboring patient in this modernized society with the expectations that labor can be completely painless. Despite modern medicine, there is still no possible way to give birth completely pain free. The results of this study suggest that although epidural analgesia is a great option for pain management during labor and delivery, all study participants are not completely satisfied with the relief which the epidural provides.

Implications for Further Research

This pilot study was conducted using participants delivering at only one hospital for a period of three months. In addition, all epidurals provided within this particular facility are placed by the same group of six anesthesiologists. Epidurals are available to all patients planning to deliver at the hospital. However, each patient must watch a video

discussing risks and benefits, and sign consents prior to being admitted to the labor and delivery unit. The video and consents are readily available along with information during prenatal visits. Patients may watch the video and sign consents at any point during pregnancy. This is a requirement by the practicing anesthesiologists at the facility.

A limitation of this study was due to the small sample size, and the use of convenient sampling. It would be beneficial to repeat this study using a larger population of participants. A wider range of responses could be obtained by surveying all women utilizing epidurals at the county hospital during a specified time period. In addition, all study participants were first-time mothers. It would also be interesting to view any differences which may exist in the expectations of women who have given birth more than once. In addition, all study participants were clients enrolled in the county's Nurse-Family Partnership program. This is an extensive home visitation program designed specifically to support first-time, low income mothers. The Nurse-Family Partnership consists of home visits that are completed frequently during pregnancy by a Registered Nurse. These mothers are exposed to a large amount of prenatal education, including pain management options, during their pregnancy. This study should be repeated with women who are not enrolled in this program and who are not exposed to the same amount of prenatal education.

References

- Association of Operating Room Nurses. (2006). More women are receiving pain relief during labor. [Electronic Version] *Association of Operating Room Nurses*, 83, 76.
- Burns, N; & Grove, S. (2005). *The Practice of Nursing Research: Conduct, Critique, and Utilization*. (5th ed.) St. Louis: Elsevier Saunders.
- Christiaens, W., & Bracke, P. (2007). Assessment of social psychological determinants of satisfaction with childbirth in a cross-national perspective. *BNC Pregnancy and Childbirth*, 7 (26). Retrieved March 11, 2010, from <http://www.biomedcentral.com/1471-2393/7/26>.
- Gulliver, B; Fisher, J; & Roberts, L. (2008). A new way to assess pain in laboring women. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, 12 (5). Retrieved March 12, 2010, from NCAHEC digital library.
- Henry, A. (2004). Intrapartum pain management at the Royal Hospital for Women. *Australian & New Zealand Journal of Obstetrics & Gynecology*, 44 (4). Retrieved February 12, 2010, from Academic Search Premier database.
- Hodnett, E. (2002). Pain and women's satisfaction with the experience of childbirth: A systematic review. [Electronic Version]. *American Journal of Obstetrics and Gynecology*, 186, 160-172.
- Kolcaba, K. (1995). The art of comfort care. *Journal of Nursing Scholarship*, 27 (4). Retrieved May 21, 2010, from CINAHL database.
- Leighton, B., & Halpern, S. (2002). The effects of epidural analgesia on labor, maternal, and neonatal outcomes: A systematic review. *American Journal of Obstetrics & Gynecology*, 186 (5). Retrieved March 11, 2010, from Ovid Journal database.

- Stark, M. (2003). Exploring women's preferences for labor epidural analgesia. *Journal of Perinatal Education*, 12 (2). Retrieved February 15, 2010, from CINAHL database.
- Tomey, A. & Alligood, M. (2006). *Nursing Theorists and Their Work* (6th ed.). St. Louis, Missouri: Mosby.

APPENDIX A

Appendix A

Expectations of Pain Relief Utilizing Epidural Analgesia

Thank you for taking the time to assist with research regarding expectations of utilizing an epidural for pain relief during your childbirth experience.

Demographics (Please fill out the following)

1. Age of Mother_____

2. Race: (Please circle one)

White/Caucasian African American Latino Asian
Other_____

3. Educational Level: (Please circle highest grade completed)

6 7 8 9 10 11 12
more

College number of years: 1 2 3 4 5 6 7 8

Did you graduate college with a degree: Yes No
If yes, what type of degree obtained:

4. Are you employed? (Please circle)

Yes No

If yes, please list type of employment:

5. Marital status: (Please circle one)

Single Married Divorced Widowed Separated

Patient expectations of the pain relief that an epidural would provide during labor (Please choose the response that best fits your feelings regarding the amount of pain relief that the epidural would provide for your childbirth experience)

Question 1: I thought that an epidural would be a good option for pain management during labor.

1.Strongly Disagree 2.Disagree 3.Neither Agree 4.Agree 5.
Strongly Agree

Nor Disagree

Question 2: I thought that the epidural would take away ALL of my pain during childbirth.

1.Strongly Disagree 2.Disagree 3.Neither Agree 4.Agree 5.
Strongly Agree

Nor Disagree

Question 3: I feel that I received adequate education regarding epidural analgesia before being in labor.

1.Strongly Disagree 2.Disagree 3.Neither Agree 4.Agree 5.
Strongly Agree
Nor Disagree

Patient Satisfaction with epidural analgesia during labor childbirth (Please choose the response that best fits your experience)

Question 1: How satisfied were you with the pain relief that the epidural provided during childbirth?

1.Very Dissatisfied 2.Dissatisfied 3.Somewhat Satisfied 4.Satisfied 5.Very
Satisfied

Question 2: My labor pain was _____ than I expected:

1.Much Worse 2.Worse 3. About the Same 4.Better 5. Much
Better

Question 3: I felt a sense of control over my pain during labor.

1.Strongly Disagree 2.Disagree 3.Neither Agree 4.Agree 5.
Strongly Agree
Nor Disagree

Question 4: I would choose the same pain management methods if laboring again.

1.Strongly Disagree 2.Disagree 3.Neither Agree 4.Agree 5.
Strongly Agree
Nor Disagree

APPENDIX B

Appendix B

CONSENT FORM

Study title: Patient Expectations of Pain relief Utilizing Epidural Analgesia During Childbirth

Investigator: Kelly Morris, RN/BSN

You are being asked to participate in a research study. The investigator is a registered nurse studying the expectations of pain relief provided by epidural analgesia during the childbirth experience. Your involvement in this study will consist of answering a survey that includes demographic data that relates to your childbirth experience. Participation in this study will take approximately 10 minutes. After completing the survey, you will be asked to place it in the preprinted envelope provided. You can give it to your home visitor nurse, who will then turn all envelopes into the Nurse-Family Partnership administrative assistant.

The study and its procedures have been approved by the appropriate people and review boards at Gardner-Webb University and Cleveland County Health Department. There are no foreseeable risks associated with this study, nor should you experience any discomforts. Although this study will not benefit you directly, it will provide information that might enable healthcare providers to more efficiently educate, assist, and care for women during pregnancy and childbirth. You are free to ask any questions about the study or about being a subject. You may call the researcher at (704) 669-3152 if you have further questions.

The study data involves a survey in which you will choose the response that best describes your thoughts and experiences regarding epidural analgesia. In addition some demographic data will be needed in terms of age, race, education level, employment status, and marital status. Your identity will be anonymous; at no time will your name need to be given to the researcher.

Your participation in this study is voluntary; you are under no obligation to participate. You have the right to withdraw at any time. Your care will not be affected by your agreement or disagreement to participate in this study, nor will it affect the relationship with the health care team.

I have read this consent form and voluntarily consent to participate in this study.

Subject's Signature: _____ Date: _____

I have explained this study to the above subject and to have sought his/her understanding for informed consent

Investigator's Signature: _____ Date: _____

