A GROUNDED THEORY STUDY OF PAIN MANAGEMENT BEHAVIORS OF NURSES WHO CARE FOR PREVERBAL CHILDREN

By

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Submitted to the Faculty of the School of Graduate Studies of the Medical College of Georgia in partial fulfillment of the Requirements of the Degree of Doctor of Philosophy

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This dissertation is submitted by Sheri Reynolds Noviello and has been examined and approved by an appointed committee of the faculty of the School of Graduate Studies of the Medical College of Georgia.

The signatures which appear below verify the fact that all required changes have been incorporated and that the dissertation has received final approval with reference to content, form and accuracy of presentation.

This dissertation is therefore in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

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A qualitative study using the grounded theory method was used to explore factors that affect nurses' pain management decision-making when caring for children between the ages of 0 and 3 years. This study was approved by the Human Assurance Committee at Medical College of Georgia prior to the collection of data. The sample consisted of eleven nurses who were employed at three different hospitals in the southeastern part of the United States. Theoretical sampling was the basis for the selection of participants after the first two interviews. Interviews were transcribed verbatim and were subjected to open and axial coding. The constant comparative method was used during data analysis to identify a core category and related concepts. The basic social process that emerged is engaging in tactics of pain management. This process contained two other processes: assessing for pain and managing a pain episode. Intrinsic factors that affected assessing for pain included knowing the territory, personal attributes of the registered nurse (RN), being a parent, and being connected. Extrinsic factors that affected engaging in tactics of pain management included workload and culture of the hospital. The process of managing a pain episode included five phases: eliminating other sources of discomfort, judging pain, comforting, medicating, and letting go.

INDEX WORDS: Pain Management, Pediatrics, Grounded Theory
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CHAPTER I
INTRODUCTION

Each day an unknown number of children endure pain from trauma, surgical and other treatments, cancers, and hundreds of other causes. Not only are infants and young children capable of experiencing pain, healthy outcomes may be jeopardized when pain is not managed properly. Anand and Hickey (1992) found that neonates with inadequate pain management had higher occurrences of sepsis, disseminated intravascular coagulation, metabolic acidosis, and death compared with neonates receiving adequate pain management after cardiac surgery. They reported that adequate pain management results in reduced responses of “beta endorphin, norepinephrine, epinephrine, glucagon, aldosterone, cortisol, and other steroid hormones ... [and] insulin responses” (p.1) and greater ratios of insulin to glucagon. Clinical consequences of prolonged pain for neonates include increased oxygen consumption, sympathetic response with endogenous catecholamine release resulting in oxygen deficiency in vital tissues, impairment of immune function, alterations in clotting time and fibrinolysis, and potential end-organ dysfunction (Anand, 1998). The ability to minimize or prevent detrimental outcomes through the appropriate management of pain is therefore crucial. Because nurses are at least partially responsible for pain management, identifying the factors that influence their pain management behaviors is a vital part of this endeavor.
Underlying the problem of under treating pain is the way in which pain is defined. For example, pain has been defined as being whatever the person who is experiencing it thinks it is and existing whenever they say it does (McCaffery, 1979). Although accepted by many health care providers, this definition is inclusive only of those individuals who are able to self-report the presence and description of pain. Because pain is one of the most common reasons for which an individual seeks medical attention, one would think that all health care providers would be adept at managing and, in some cases, even preventing the occurrence of pain. Therefore, one might assume that when pain is accurately described by the experiencing individual, then pain management is optimal. However, if an individual is unable to verbalize the presence and description of pain, the potential for inadequate pain management is present.

Individuals who are unable to verbalize their experience of pain are vulnerable to ineffective pain management. These may include infants, young children, the mentally retarded, comatose patients, demented persons or verbally handicapped individuals. For all patients, decisions regarding medication administration rest largely with the nurse. For those individuals who are unable to verbalize their pain, the nurse must decide if the person is in pain. Therefore, decision-making and the factors that may influence this process are extremely important in understanding the pain management practices of health care providers. Unfortunately, research studies for all patient populations have shown that pain management has been less than ideal and even absent in some cases (McCaffery, 1979). While vulnerable persons may be at a higher risk for under treatment of pain, this problem also affects adults and children within the general population.
The discrepancies in the outcomes of pain research are at best frustrating when attempting to alleviate the problem of under-treatment. The contradictory findings of some of the studies give evidence for the need to develop a theory to assist in explaining what factors affect the pain management behaviors of pediatric nurses. The use of the grounded theory method is most appropriate for this study because this researcher’s goal is to develop a theory from empirical data rather than from speculations. A qualitative subjective method was employed in this study because the primary goal was to understand the internal processes of nurses’ pain management in caring for preverbal children.

Problem Statement

Effective pain management continues to be a healthcare problem, especially for preverbal children. In the review of literature for this study, several contradictions were seen in the findings of pain management studies on children and the population of preverbal children is generally underrepresented in these samples. Factors that affect pain management behaviors of nurses who care for preverbal children should be explored in order to improve healthcare for these individuals.

Research Question

This study was guided by the following research question: What are the processes nurses engage in when managing pain in preverbal children?
Specific Aim

The specific aim of this study was to use the grounded theory method to explore the processes and factors that affect nurses' behaviors in managing preverbal children's pain. In order to limit the study population, nurses caring for preverbal children, individuals from birth to 3 years of age, were selected to comprise this study's sample. Rationale for this selection stemmed from this author's interest in preverbal children as a vulnerable population and, as the subsequent review will indicate, the under-representation of preverbal children in research studies.

Significance of Study

There has been a tremendous focus on pain and its management in the nation's healthcare system. This focus is evidenced by the National Institute of Health (NIH), who developed the NIH Pain Research Consortium in 1996 (National Institutes of Health, 2002). This consortium is responsible for the exchange of information, proposal of topics for workshops and conferences, and providing joint program announcements in the field of pain research. Other evidence to support this claim is the inclusion of numerous new pain policies in the Comprehensive Accreditation Manual for Hospitals for the year 2000 (Joint Commission on Accreditation of Hospitals Organization, 1999). Examples of these new policies are that all patients have a right to pain relief and all hospitals should include a statement of commitment to pain management in their mission statement. Although the right of pain relief seems to be a basic one, not all patients are given equal opportunities to obtain this goal. The American Academy of Pediatrics (AAP) has also joined in the endeavor to heighten awareness of neonatal pain and pain management. In
February 2000, the AAP adopted a policy statement on the prevention and management of pain and stress in the neonate (American Academy of Pediatrics, 2000). The need for such a policy after many years of research supports further study in this area. This policy was enacted as a result of the lack of knowledge that healthcare professionals had regarding pain and pain management in the infant population. This policy also addressed the potential increase in mortality rates of those infants who experienced prolonged or severe pain. The basis for this policy was to support the prevention of painful or noxious stimuli when at all possible, rather than the management of pain. Previous research findings helped to develop policies such as these.

Research studies have documented the under treatment of pain in various populations throughout the last three decades. Infants and young children have been underrepresented in the samples of research on pain. The most frequently sampled age group was those children between ages 7 and 12 (Boughton, et al., 1998; Maikler, 1998; Gadish, Gonzalez, & Hayes, 1988). These studies have used descriptive or correlational research designs to establish several possible factors that influence a nurse's decision to manage pain. These factors include the following characteristics of the nurse: level of education, personal experience, professional experience, belief system, and knowledge of pain and pain management, as well as the cultural background of both the nurse and the patient. Although these studies are valuable in developing a foundation for future research, there are gaps in the existing knowledge that will require qualitative methods to fill. The need to include the vulnerable population of infants and young children is imperative in improving the quality of healthcare for these individuals.
A Computer Retrieval of Information on Scientific Projects (CRISP) search performed on the National Institutes of Health (NIH) research activities revealed several studies that focused on pain in neonates/children. However, no currently funded research was found to address why nurses have not applied the outcomes of pain management research into their clinical practice.

Pain management is considered an ethical issue. The International Council of Nurses’ Code of Ethics (1977) and the American Nurses’ Association Professional Code for Nurses set forth standards to guide nursing practice (ANA, 1985). These standards include five ethical principles, which are: (1) autonomy – self-determination by the client; (2) beneficence – doing good for the client; (3) nonmaleficence – avoidance of harmful actions toward the client; (4) justice – respect of client rights and performance of fair treatment; and (5) responsibility and accountability for competence, to include maintaining current knowledge and practice of pain and pain management therapies. These ethical principles are violated when nurses do not advocate for effective pain management. This qualitative study may give rise to the reasons behind these violations.

Assumptions

The assumptions made by this study consist of the following:

1. Preverbal children do experience pain.

2. There are appropriate interventions that can be used to minimize or eliminate this experience.

3. In many cases, there are interventions that can be carried out to prevent the occurrence of pain.
4. A nurse should function as a patient advocate, especially when the patients are unable to speak up for themselves.

5. Nurses genuinely care for their patients and want to minimize the suffering experienced by their patients.

6. Nurses have basic knowledge of pain and pain management interventions.

Theoretical Framework

This study used grounded theory methodology to analyze data obtained from interviews with nurses who care for preverbal children in pain. Grounded theory is a qualitative research method that was first developed and reported by Glaser and Strauss (1967) and was designed to generate and test theories that are developed from empirical data instead of logical deductions (Bowers, 1988).

The intellectual roots of the grounded theory method are couched in the premises of symbolic interactionism, which resulted from challenges to the traditional and accepted functionalist view. Functionalism focused on the stability of society and only accounted for individuals as fulfilling societal roles and internalizing social norms (Bowers, 1988). According to functionalist theory, individuals are not considered to be active in the process of becoming; their roles are determined by society. As a result, a group from the Chicago School of Sociology developed symbolic interactionism between 1920 and 1950.

Symbolic interactionism is a social-psychological theory of social action and asserts that an individual “is socially constructed through ongoing social interaction by receiving and interpreting social cues from the environment” (Bowers, 1988, p.37). These
Interactions become more predictable as symbols are assigned to objects and shared by individuals in society. These symbols can be written or unwritten and must be accessible to those that share them. Language is a prime example of such a symbol. Interactions between and among individuals increase the sharing of how those individuals define concepts or objects and, subsequently, increase the consistency in understanding and the actions toward those objects. This process enhances the ability to predict the behavior of others. However, since individuals' actions are responsible for defining objects, those definitions "may vary from one individual to another, from one context to another and over time" (Bowers, p. 39). This is also true of one's reality.

Summary

Pain is a major health problem and under treatment is widespread. The physical, psychological, and emotional effects of pain for the patient are grave. Since preverbal children are unable to verbalize their experience of pain, the accepted definition of pain compromises pain management for these individuals. Nurses are largely responsible for the recognition, intervention and advocacy of preverbal children in pain, and factors affecting pain management behaviors related to this role must be understood.

The specific aim of this study was to implement the grounded theory method to explore factors that affect nurses' processes in managing preverbal children's pain. The use of qualitative methods for this study was supported by gaps in the existing knowledge, conflicting results of the existing knowledge, the lack of application of existing knowledge to clinical practice, and what appears to be a lack of ethical principle guiding this clinical practice.
CHAPTER II
REVIEW OF THE RELATED LITERATURE

In this chapter, a review of research studies that address the under treatment of pain in preverbal children and studies showing influencing factors on pain management will be presented. Due to the limited number of studies in this area, studies published before 2000 will be included, as well as studies that included pediatric nurses/patients but did not address the ages of the children involved. If a potential study focused on self-report of the patient, the article was excluded due to the focus of the present study on children unable to verbalize their pain experience.

Undermedication of Pain in Preverbal Children

Several studies have documented the under-medication of pain in children, and there is evidence that there is even a greater amount of under-medication in preverbal children. Beyer, DeGood, Ashley, and Russell (1983) performed a retrospective chart review to contrast the prescription and administration of postoperative analgesics for children and adults undergoing similar cardiac procedures in order to focus on the current patterns of pharmacological support for the postoperative child. One hundred charts were randomly selected from all eligible subjects in one hospital. Fifty charts from children ranging in age from 1 day to 14 years and 50 charts from adult patients ranging in age...
from 36 to 60 years were selected. Eighty-six percent of the entire sample was white, 14% was black and 53% was female. Data were collected for the first three postoperative days and the fifth postoperative day of all participants. Recorded variables included age, sex, race, weight, and the analgesics and antipyretics ordered and administered during each patient’s hospital stay. Statistical significance was found between adults and children regarding the availability of postoperative analgesics ($X^2(1)=4.43, P<0.05$). Adult prescriptions of analgesics were more likely than child prescriptions to be within the therapeutic range ($X^2(1)=9.49, P<0.01$). Although there were no differences between less potent narcotics and non-narcotic prescriptions for adults and children, adults were more likely to have potent narcotics prescribed for them than children ($z=2.00, P<0.05$). On the fifth postoperative day, 90% of all analgesics originally ordered for children were discontinued, and only 6% of these discontinued meds were followed by new orders, while only 62% of adult analgesics were discontinued, and 37% discontinuations were followed by new orders. Although the study did not specify what those new orders were, it is possible that they were orders for stronger medications. A significant relationship was found between age and the total number of analgesics given during the four days of observation ($r(98)=12.23, P<0.001$) in the Beyer, et al. (1983) study.

Mather and Mackie (1983) found similar instances of under-medication for young children. Using a descriptive design, 170 charts were reviewed in order to survey the occurrence of pain in children after surgery, as well as the type and success of analgesic medication used in its treatment. The sample included 69 females and 101 males with a mean weight of 29 kilograms and a mean age of 8 years. Since the age range was not given, the inclusion of preverbal children cannot be assumed. Sampling techniques were
not discussed in the article. The findings of this study were troubling. Even though 40% of the charts included documentation of moderate to severe pain levels, 16% of the sample had no analgesics ordered. Forty percent of the ordered potent narcotics were not given; non-narcotics or no analgesics at all were substituted.

Schechter, Allen, and Hanson (1986) also performed a retrospective chart review. Their goal was to address methodological weaknesses in previous studies, to define more broadly the current status of analgesic usage in children, and to control more rigidly for the effect of medical diagnosis on analgesic prescribing practice. One hundred eighty charts were randomly selected from all eligible subjects in two hospitals. Charts of all patients admitted during the previous 3 years whose primary diagnoses were unilateral inguinal hernia without incarceration, appendectomy without rupture, fractured femur, and second degree burns occurring on less than 20% of the body's surface were eligible for the study. The sample consisted of 90 infants and children between the ages of 0 and 13 years with a mean age of 6.4 years and a mean length of stay (LOS) of 6.4 days. Ninety charts from adults were randomly selected with ages ranging from 18 to 64 years and a mean age of 37.3 years and a mean LOS of 5.6 days. Gender distribution was matched for both groups, with a male to female ratio of approximately 2:1. Thirteen percent of children did not have narcotics ordered, compared to 0% of adults. Children received a mean of 5.7 doses (range 0 - 52) of narcotics, while adults received a mean of 14.7 doses (range 0 - 132). Children received a mean of 1.08 doses per day, and adults received 2.20 doses per day (no $\chi^2$ value given, $P<0.001$). Non-narcotic orders and administration were similar for both groups.
Pederson and Bjerke (1999) found that a mean score of 4.2 on a 10-point pain scale would cause the nurse to medicate a child for pain. These findings are consistent with Probst, Lyons, Leonard, and Esposito (2005) who found that only 50% of pediatric patients in moderate to severe pain would be offered an analgesic during their emergency department (ED) visit. Fifty-three percent of the patients who were given analgesics waited from at least 31 minutes to up to 3 hours after being assessed. Only 21% of the patients were reassessed after analgesic administration; therefore, the need to re-medicate was unknown.

Helgadóttir (2000) performed a retrospective chart review to describe the current practice of prescription and administration of pain medication postoperatively to infants and children in the National University Hospital in Iceland to determine whether these patients received therapeutic doses of pain medication. Six research questions were posed: 1) how frequently are infants and children prescribed/administered therapeutic doses of pain medication after they have undergone surgery?, 2) how frequently are infants and children administered a therapeutic amount of acetaminophen the first postoperative day?, 3) what is the mean amount of acetaminophen administered the first postoperative day for the different age groups?, 4) what is the frequency of pain medication prescribed/administered for different age groups after surgery?, 5) what is the frequency of pain medication prescribed pro re nata (PRN, or as needed) after surgery for infants and children, and 6) what is the administration route of the pain medication? Quota sampling techniques were used to obtain 125 medical records of those infants and children who had surgery. Five age groups with at least 20 medical records in each were developed: infants (1 to 12 months), toddlers (13 to 36 months), preschoolers (37 to 60
months), younger school-aged children (61 to 96 months), and older school-aged children (97 to 132 months). Ages for the entire sample ranged from 1 month to 131 months, with a mean age of 58 months. Length of hospital stay ranged from 1 to 5 days, with a mean for each individual group of 2.2 days (infants), 2.0 days (toddlers), 2.5 days (preschoolers), 2.1 days (younger school-aged children), and 2.1 days (older school-aged children). Types of surgery performed on the children included abdominal (16%), craniofacial (8.8%), genital (14.4%), orthopedic (34.4%), more than 1 surgery (11.2%), and others (15.2%). Data were collected on demographics and on information regarding pain medication prescription and administration. The pain medications most commonly prescribed and administered were acetaminophen (48%), acetaminophen with codeine (15%), and ketobemidone (22%). These medications accounted for 85% of written prescriptions and 93% of the doses administered. Of all the medications prescribed, 38% were in the therapeutic range, 41% were subtherapeutic and 21% were above the therapeutic range. The total number of doses administered was 685, and, of these, 32% were in therapeutic range, and 22% and 46% were in the low and high ranges, respectively. Only 23% of the children received a therapeutic amount of acetaminophen the first postoperative day. Surprisingly, infants were the only group that received therapeutic levels of acetaminophen on the first postoperative day and all infants received pain medication after surgery. Twenty-nine children had no pain medication prescribed after surgery. Seventy-one percent of pain medications were written as PRN or as needed, and 24% were scheduled around the clock. For the infant group, this study reveals an improvement over previous research findings regarding the administration of pain medication following surgery; however, the specific pain medication is not revealed in
the report, and this improvement may be for acetaminophen orders that were received. Pain scores were not available for chart review to assess pain relief and the authors offered no reasons for this. A lack of documented pain assessments has been found in practice and in studies. This lack of documentation would be consistent with literature in this review regarding the standardized pain assessment tool usage. Another limitation of this study is that the type of surgery was not controlled. Pain levels may be very different with different types of surgeries performed.

The findings of these studies are alarming. The recognition of young children not being offered pain medication after significant surgeries is a definite cause for concern. Reasons behind the lack of narcotic orders and analgesic administration are unknown; one can only speculate at this point about the causes of such inhumane behaviors.

Categories of Influencing Factors

Several studies have attempted to delineate the factors that may influence nurses' pain management decisions. These factors may be divided into the following categories: professional experiences, beliefs/attitudes on pain management, education, personal experiences with pain, lack of standardized pain assessment tool usage, age of patient, workload, type of surgery/procedure/medical diagnosis, culture of the hospital, physician prescribing practices, and personal attributes of the RN. While there is some overlap between these categories within any single research study, each category will be discussed separately, with pertinent research given for each.
Professional Experience

Professional experience is defined as “those experiences with others suffering pain that have been gained through the professional role of the nurse and the specialized knowledge achieved in that role” (Greipp, 1992, p.48). Using this definition, this section will be divided into two subcategories: knowledge and experience.

Knowledge. The knowledge concerning pain and pain management that a nurse possesses may have been gained as a result of the curriculum in nursing programs, hospital orientations, or continuing education courses taken since graduation. Studies focusing on nurses’ lack of pain and pain management knowledge will be discussed in this section.

Simons and Roberson (2002) performed a phenomenological study to explore the perceptions of nurses and parents of the management of postoperative pain in children. Twenty nurses were selected and matched with twenty parents and pain-related notes from their twenty children using purposive sampling. This type of sampling gives the researcher the ability to select participants from whom certain information is most likely to be obtained. All children in the study had undergone moderate to major surgery and had a morphine pump postoperatively. Although specifics were not given as to the deficiencies in the nurses’ knowledge of pain and pain management, the authors did document that nurses showed a deficiency in many aspects of pain management. Limitations of this study included a lack of nonparticipant observation and the inability of the researchers to validate interview findings with participants.

McInerney, Goodenough, Jastrzab, and Kerr (2003) performed a descriptive, correlational study of 136 pediatric nurses to examine relationships between nurses’
perceptions of suboptimal pain management outcomes and knowledge levels of fellow nursing staff, the knowledge levels of medical staff, patient behaviors that confused nurses about their pain states, and the side effects of medications. Ninety-six percent of the sample consisted of women, and the mean age was 33.9 years. The mean experience level was 11.8 years. The authors did not delineate what type of experience was measured, whether total nursing years or experience in pediatric nursing. Several educational levels were represented in the sample. Certificate nurses made up 30.4% of the sample while diploma, degree, graduate diploma, and masters/PhD nurses made up 12.6%, 34.1%, 17%, and 5.2%, respectively. Several nursing areas were also represented in the sample. Nurses completed a survey that measured their formal knowledge levels and the nurses' perceptions of their own knowledge level. A survey developed by the researchers was used to measure formal knowledge. A panel of hospital-based experts in pain management reviewed the item content. No other psychometric data were given. Although eighty-five percent of subjects rated their knowledge of pediatric pain as either 'good' or 'very good', only 63% of the nurses achieved a minimum of 75% on the formal knowledge items. Overall results showed a low positive correlation between mean total knowledge scores and self-assessed strength on knowledge base for pediatric pain ($r=0.23, p<0.01$). The fact that only 63% of the nurses achieved at least 75% on the formal knowledge survey is alarming; however, these findings are not generalizeable because only one hospital was used in obtaining the sample.

Salanterä, Lauri, Salmi, and Helenius (1999) reported a descriptive study that investigated the knowledge base and practices of pain management in children receiving care from Finnish nurses working on children's wards in university hospitals. Four
research questions were stated: 1) what do nurses know about nonpharmacological pain management in children?, 2) what do nurses know about pharmacological pain management in general, and about anti-inflammatory drugs, opioids, and regional anesthesia in children?, 3) what methods of nonpharmacological pain management do nurses use in practice?, and 4) do the knowledge base and methods used differ according to nurses’ age, time of graduation, education, institute, ward, working experience, or nurses’ own opinion of their knowledge? Two hundred sixty-five nurses who worked in children’s wards were recruited to participate in this study. Ages of the subjects ranged from 29 to 50 years, with a mean age of 39 years. Nursing experience ranged from 0.5 to 35 years with a mean of 14.5 years. As in the previous study, years of experience was not specifically defined as total nursing years or pediatric nursing years of experience. Fifty-six percent of the subjects were specialized in children’s care, which is equivalent to 3.5 to 4.5 years of nursing education. Sixteen percent were specialized in anesthesiology or operating room nursing and 15% had some other specialization. Thirteen percent had no specialty. This correlates with 2.5 years of nursing education in the United States. Thirty percent had had no formal education in pain management, but close to 30% had read at least one research article or report in the area of pain in the previous 2 years and 45% had received information about pain from professional journals. The knowledge instrument was developed by the researchers and pilot-tested and revised by a group of experts who had at least 5 years of experience in children’s pain management. No other psychometric data were reported. For overall pain knowledge, 79% of the subjects had 50% or more correct answers for pain knowledge items and 11% of the subjects achieved at least 80% correct answers. The mean correct score for pain knowledge was 63%. Nurses’
knowledge differed according to their age, education, and place of work. With respect to knowledge of pharmacological interventions, only 2% of the nurses had over 80% correct answers while over 40% of the nurses had more than 50% incorrect answers, with a mean correct score of 51%. Pharmacological pain management knowledge differed significantly according to nurses’ age ($X^2(4)=11.1, P=0.025$), place of work ($X^2(6)=37.5, P<0.001$), experience ($X^2(3)=16.1, P=0.003$), and their own opinions of what they knew about pharmacological pain management ($X^2(4)=28.9, P<0.001$) and its side effects ($X^2(4)=21.8, P<0.002$). Nurses were aware of their lack of knowledge, as evidenced by the matched scores between their opinions of their knowledge and their actual measured knowledge. While the overall knowledge level of nurses in this study is disturbing, the fact that true/false statements comprised the tool used to measure knowledge is even more troubling. True/false statements give the one taking the test a 50% chance of answering the question correctly even if the answer is unknown. This advantage may have resulted in knowledge scores being inflated. Testing at a higher level would have resulted in less ambiguity of measuring knowledge of pain and pain management.

These studies highlight the general deficiency of knowledge regarding pain and pain management strategies in nurses in a variety of clinical settings. Findings of these studies are also consistent with Broome, Richsteiner, Maikler, and Alexander’s (1996) study of pain management in teaching hospitals across the United States. In this study, 83% of the 113 healthcare providers surveyed stated that knowledge deficits were an obstacle to effective pain management. This lack of knowledge results in inadequate amounts of pain medication administered, worries of addiction and respiratory depression, and irrational interpretations of PRN narcotic orders.
Experience. Burokas (1985) examined the responses of 134 nurses who were given the Nurses’ Pediatric Pain Relief Questionnaire. The nurses were primarily women and most held bachelor’s degrees. Nurses selected narcotics more often for terminally ill patients and less often for younger patients. Pain did not occur, according to 9.7% of the nurses, until after one month of age. Chart reviews were performed on 40 pediatric patients ranging in age from neonate to 10 years. Subtherapeutic dosage per kilogram of narcotics was prescribed for 15 of the patients. On average, patients received only two doses of analgesics per day.

The Burokas (1985) study identified the top four factors that affect nurses’ decisions to medicate pediatric patients after surgery. Those factors are: (1) evaluation of vital signs, (2) type of surgery, (3) severity of pain, and (4) nonverbal behaviors. As many as 50% of the pediatric intensive care unit and intensive care unit nurses indicated that the pain relief needs of their patients were not met. Although most demographic variables were found to be insignificant, the type of nursing unit on which the nurse works did have an effect on the strength of the pain medication selected. While Pediatric Intensive Care Unit (PICU) nurses gave significantly fewer nonnarcotic analgesics than did nurses on surgical and Intensive Care Nursery (ICN) units, PICU nurses were less hesitant in administering intravenous narcotics than surgical nurses. Similar findings of the work environment affecting pain management have been documented. Geographic location of the hospital was also assessed.

Probst, Lyons, Leonard, and Esposito (2005) found that rural hospitals were associated with a lesser likelihood of offering higher potency opioid analgesics. Salanterä et al. (1999) found that nurses on surgical wards and in children’s ICU had the highest
number of correct answers on anti-inflammatory and opioid use for pain management, while nurses working in the neonatal ICU and the outpatient clinic had the lowest number of correct answers in these same areas. Pederson and Bjerke (1999) found that 89% of the pediatric critical care nurses indicated that they learned about nursing interventions to address pain from their current work environment; they concluded therefore, that nurses’ pain management is influenced by a unit’s milieu and through their colleagues’ pain management practices.

Other studies have investigated the effects of experience and intuition on clinical decision-making abilities of nurses (Rew, 2000; Tabak & Bar-Tal, 1996). To test the possibility that intuition may play a greater role in clinical decision-making than previously thought, Rew (2000) developed and tested the Acknowledges Using Intuition in Nursing Scale (AUINS). Its development was based on an extensive review of literature and Bastick’s theory of intuition. Testing of this tool resulted in an internal consistency of .91 and construct validity using principal components analysis. The use of intuition in clinical decision-making has not been widely studied. In discussing Bastick’s theory of intuition, Rew stated that previous experience is related to the intuitive process.

Tabak and Bar-Tal (1996) examined the clinical decision-making abilities of experienced versus novice nurses. A quasi-experimental design was used to distinguish decision-making difficulties between experienced nurses and nursing students. When both groups were given consistent information, experienced nurses made decisions regarding the diagnosis with less difficulty and more certainty than the nursing students. Interestingly, when inconsistent information was given, nursing students had less
difficulty and more certainty than the experienced nurses. Further research in both of these areas would be beneficial.

Hamers, van den Hout, Halfens, Abu-Saad, and Heijltjes (1997) explored the influence of expertise in decision-making regarding pain assessment and intervention. Three hypotheses were posited for this quasi-experimental study: 1) novices, intermediates, and experts differ in their assessment of postoperative pain in children, 2) confidence in pain assessment increases with increasing level of expertise, and 3) there would be no differences between novices, intermediates and experts in the postoperative administration of non-narcotic analgesics. Specific sampling techniques were not discussed in the article; this study was a part of a larger study and these details may have been inadvertently left out of the article. Six hundred ninety-five nurses were recruited from several nursing schools and hospitals and were randomly assigned to one of four groups after stratification for nursing school was performed for the novices and intermediates. Stratification was performed for experts and included years in pediatric nursing (0-3, 4-7, 8-11, 12-15, and greater than 16 years), knowledge (specialized in pediatrics: yes or no), and type of hospital or ward on which the nurses worked. Hamers et al. considered the subjects to be novices if they were first year nursing students; intermediates, if they were fourth year nursing students; and experts, if they were pediatric nurses. There were 271 novices, 239 of whom were women. Ages ranged from 17 to 35, with a mean of 19.4 years. Novices were recruited from six bachelor of science in nursing (BSN) programs. There were 222 intermediates, of whom 194 were women. Ages ranged from 20 to 43, with a mean age of 22.2 years. Intermediates were recruited from five BSN nursing programs. Two hundred two experts were included in the sample.
These included 180 women and 22 men, with ages ranging from 22 to 56 years and a mean of 32.1 years. Experts were recruited from eleven hospitals. No significant differences in level of specialized education and hospital where employed were found. The researchers used vignettes and videos that had been pilot-tested prior to this study and had demonstrated face and content validity as judged by pediatric experts. Each of the four groups was given different cases of children in pain and was asked to rank the level of pain intensity for each. No differences were found between novices', intermediates', and experts' abilities to assess pain; therefore, the first hypothesis was not supported. The researchers felt that perhaps being an expert did not determine the final pain assessment, but indicated instead the speed at which the nurse arrived at that conclusion. This study did not attempt to set time limits or measure time taken for decision-making. A main effect was found for expertise ($F_{2,683} = 21.91; P<0.001$), however, the hypothesis on confidence was only partly supported. Experts showed most confidence followed by novices and intermediates having the least confidence in pain assessment ($P<0.01$). The third hypothesis was not supported as experts were more inclined to give postoperative analgesics than were either novices or intermediates. Characteristics within the cases influenced experts the most, followed by intermediates. Novices were not influenced by characteristics with the cases, as novices across all groups were inclined to give analgesics regardless of the case presented.

Not surprisingly, Salanterä et al. (1999) found a correlation between years of experience and level of pain knowledge; however, after 20 years of experience, that knowledge declined. These experienced nurses used more nonpharmacological methods in their pain management practices, and nurses with 2 to 4 years of experience used the
least nonpharmacological methods in their pain management practices. An inverse relationship was found between levels of experience and how well the nurse perceived that pain was managed ($r=0.44$, $P=0.02$) (Pederson & Bjerke, 1999).

Because the bulk of the studies included in this section were descriptive, limitations in the methodology are apparent if one holds the experimental design as the gold standard. Furthermore, other limitations exist and are similar to those discussed in the previous section. A lack of formal conceptual/theoretical framework identified in the study was often a limitation (Burokas, 1985; Tabak & Bar-Tal, 1996; McInerney et al., 2003; Salanterä et al., 1999; Pederson & Bjerke, 1999; Hamers et al., 1997). The use of convenient or unclear sampling procedures was also evident (Burokas, 1985; Rew, 2000; & Tabak & Bar-Tal, 1996; McInerney et al., 2003; Salanterä et al., 1999). Although Simons and Roberson (2002) did not use random sampling techniques, purposive sampling was very appropriate for the qualitative approach used in the study. More than half of the studies did not document the validity and/or reliability of the measurement or survey tool used in the study (Burokas, 1985; Tabak & Bar-Tal, 1996; McInerney et al., 2003; Salanterä et al., 1999).

Professional experiences, whether of knowledge or actual experience, can impact nurses’ decisions in managing pain. For the purposes of this review, professional experiences were defined as those that occur as a direct result of being in the nursing profession. However, definitions of experience are not standardized and may result in the unexpected findings in some of these studies. Chronological years of experience and experience with patients in pain are not necessarily equal and should be taken into consideration when exploring effects on pain management behaviors.
Belief System

Here, a nurse’s belief system is defined as a conglomeration of assumptions regarding pain and pain management that may or may not be based on facts (Greipp, 1992). This category comprises both concepts of beliefs and attitudes, as well as other closely related concepts cited in the research.

Page and Halvorson (1991) examined nurses caring for preverbal children in pain. A convenience sample of 108 registered nurses were given the Pain Questionnaire and the Videotape Questionnaire to ascertain nurses’ attitudes toward preverbal children’s pain and their ability to detect pain cues from videotapings of preverbal children and to identify appropriate pain management strategies. Content validity and test-retest reliability were documented and were deemed acceptable for each of the measures. The participants were asked to rank their responses on a 5-point Likert scale. The participants also were required to respond to videotaped vignettes of infants experiencing postoperative pain. The responses included behavioral cues of infant pain, level of pain, and strategies for pain control. Only 13% stated that their goal for pain relief was to relieve pain completely. The nurses who worked in noncritical care areas identified more pain cues and rated the infants’ pain as more severe than their critical care counterparts. Participants’ age, educational preparation, number of years practicing as an RN, or years as a pediatric nurse were not significant for study outcomes.

Margolius, Hudson, and Michel (1995) developed a survey to examine the beliefs related to pain in children who were hospitalized and the perceptions of effective pain management practices among nurses in a pediatric setting. The 17-item survey was examined for content validity by a review panel of 10 experts. Each item was ranked by
the respondents on a Likert scale. Demographic data included age, highest level of nursing education attained, present nursing position, total number of years in nursing, and number of years in pediatric nursing. The sample consisted of 222 healthcare workers. There were 183 registered nurses (RN), 24 licensed practical nurses (LPN), and 15 patient care assistants. Approximately half of the nurses were baccalaureate prepared and less than 11% held master’s degrees. Less than one-third of the sample had less than 6 years of experience within nursing settings. Years of nursing experience, number of years of pediatric nursing experience, and age were not significantly correlated with either pain perception or perception of pain management. Findings indicated that the master’s prepared nurses held the greatest insight regarding pain management. However, the master’s prepared nurses are usually not at the bedside, leaving pain assessment and management in the hands of those who are less insightful. One interesting component of this study was a qualitative evaluation of 51 participant comments that were made on the questionnaire. Four themes emerged during analysis: “(1) the need for educating physicians about effective pain management, (2) the need for more information about pain management in the neonatal/infant population, (3) the need for more collaboration between nurses and physicians when managing pain in children, and (4) a definite need for more support for nurses to influence pain management” (p. 114).

Jacob and Puntillo (1999) also looked at pediatric nurses’ beliefs and practices regarding pain in hospitalized children. Two research questions were investigated: what are pediatric nurses’ beliefs and perceptions regarding pain assessment and management of pain in children, and what are the pain assessment and management practices of nurses, as reflected in their documentation? The Children and Pain Survey was used to
elicit data from a convenience sample of 260 nurses. A chart review was also conducted on a convenience sample of 153 patient charts ranging in age from 1 month to 18 years. Pain assessment was identified by 67% of nurses as the initial step in managing children’s pain and was deemed as essential. Seventy-four percent of the nurses felt that a child’s pain was accurately assessed. In preparing children and parents for painful procedures, 81.4% of the nurses felt that they adequately prepared children and 69.6% felt that parents were adequately prepared. While 62% of the nurses felt that accurate documentation resulted in more effective pain management, 45% of day shift nurses, 44% of evening shift nurses, and 38% of night shift nurses did not document pain assessments. When charts were reviewed for medication administration during a 24-hour period, 17% to 56.8% of all medications prescribed for pain were not administered.

Pain management is often affected by the continued belief in myths of children in pain; however, Pederson and Bjerke (1999) found that nearly all of the 27 pediatric critical care nurses they surveyed disagreed with historical myths such as adults experience pain more intensely than children, chemical paralysis is equivalent to being pain free, and negative outcomes do not result from pain. These nurses were less sure of other myths regarding children tolerating pain better than adults, the possibility of pain being life-threatening, and whether vital signs are a true sign of pain. A moderately positive attitude toward managing pain in critically ill children was reported in the study. There was a direct correlation between positive attitudes toward pain management and education ($r=0.4, p=0.02$) and having older children at home ($r=0.42, p=0.03$).

McInerney et al. (2003) examined suboptimal pain management blame among 136 pediatric nurses. Their findings showed that nurses were more likely to blame a lack
of knowledge by the medical staff for ineffective pain management rather than themselves.

Jacob and Puntillo’s (1999) study reported no statistical correlations among the study variables. Showing positive or negative relationships among these variables would have strengthened the usefulness of this study. Other limitations were no different for this section than previously discussed. Only one study documented the use of a conceptual framework (Margolius, Hudson, & Michel, 1995). While the researchers discussed the Pain Gate Theory and its assertions of physiologic and psychological factors that influence pain perception, there was no adequate case made for its relevancy to nurses’ beliefs and perceptions. The use of convenience sampling is extremely common in descriptive studies, and this still remains a limitation (Page & Halvorson, 1991; Margolius, Hudson, & Michel, 1995; Jacob & Puntillo, 1999). Margolius, Hudson, and Michel (1995) presented an extremely limited review of literature and left the reader with little background of the study problem.

Pain management appears to be strongly influenced by nurses’ beliefs, attitudes, and/or perceptions. Improving nurses’ knowledge and changing their belief systems may help to improve pain management for patients, specifically preverbal children.

Education

For the purpose of this review, education is considered to be “general or specific teaching and learning that effects a behavior change” (Greipp, 1992, p. 49).

Educational preparation of the nurse and age of the patient were found to be the only influences when examining nurses’ decisions to administer pediatric medication postoperatively (Gadish, Gonzalez, & Hayes, 1988). In one study, thirty-eight nurses
were given the Nurse's Pediatric Pain Relief Questionnaire. The questionnaire consisted of 36 close-ended questions regarding nurses' beliefs about pediatric pain and analgesia and included eight clinical postoperative vignettes. Multiple-choice questions related to postoperative analgesia were included. Along with the questionnaire, a chart review was conducted on those patients on the units where the nurse participants were employed. 

Ages of the patients ranged from birth to 12 years. The Chart Review Checklist was used to ascertain demographic data, types of surgery, and type and amount of analgesia ordered and received during the first five postoperative days. The study found that when nurses assessed the presence of pain, analgesic medication was the intervention of choice 84.8% of the time ($X^2$ value not given, $P<0.005$). The baccalaureate prepared nurses were more likely to give medium and high doses of that medication ($X^2$ value not given, $P<0.005$). Of those children who were medicated, younger children were given lower dose narcotics or nonnarcotics for pain ($X^2$ value not given, $P<0.005$). When comparing the nurses' responses to the vignettes, incongruencies were found between the pain relief goal of the nurse and the nurse's actions. Only 13% of the charts reviewed were infants, 17% were toddlers, 21% were preschoolers, and 50% of the subjects were school age. Of the narcotics that were ordered, only 55% were ordered in therapeutic range, 31% were ordered below the therapeutic range, and 14% were ordered above the therapeutic range. Unbelievably, 5.3% of the nurses believed that children under 6 months of age do not experience pain.

Pederson and Bjerke (1999) surveyed 27 pediatric critical care nurses to determine ways in which pediatric critical care nurses learned about pain management and the information sources nurses used when making pain management decisions. Other
objectives of this study were to measure beliefs, attitudes, and clinical practices related to pain management, examine correlations among study variables, and provide the basis for a clinical pathway. Ages of the sample ranged from 26 to 43 years, with a mean of 34.7 years. Pediatric experience of the sample ranged from 1 to 20 years, with a mean of 10 years. Sixty-eight percent of the sample had bachelor’s degrees and only one male was included. Eighty-nine percent of the nurses learned about pain management from their current working environment, while 70% credited clinical work since graduation. Staff development (33%), conferences (15%), content in nursing programs (15%), and journal articles (11%) were other sources of pain management information. Correlations were found between level of education and positive attitude toward pain management ($r=0.4$, $p=0.02$), and between current work environment and effectiveness of pharmacological interventions ($r=0.4$, $p=0.02$). One limitation of this study was the lack of psychometric measurements for the 43-item survey that was developed for the study. Validity and reliability were reported for the four items measuring attitude that were a part of the survey.

Level of education has been found to influence the pain management behaviors of pediatric nurses. In addition to the above studies, Salanterä et al. (1999) found an association between level of education and pain management knowledge. Education after licensure, i.e., continuing education courses, has shown greater efficacy in increasing knowledge and attitudes of nurses regarding pain and pain management than level of education. Extensive instruction on pain and pain management within basic nursing programs may offer another approach to increasing nurses’ knowledge and attitudes regarding pain.
Personal Experience

The personal experiences of the nurses are defined for this study as their direct and indirect experiences from birth to the present (Greipp, 1992).

Holm, Cohen, Dudas, Medema, and Allen (1989) investigated influences of nurses' personal pain experiences on the assessment of patients' pain. Questionnaires were distributed to 205 randomly selected nurses from among all the nurses employed in three Midwestern hospitals. A total of 134 nurses completed a demographic questionnaire, a personal pain history questionnaire, and the Standard Measure of Inferences of Suffering Questionnaire (SMISQ). Although the authors addressed only internal consistency for the latter instrument, three items were added to the original tool and may have affected the reliability and validity of the instrument. The tool consisted of 60 clinical scenarios, which were ranked from 1 to 7 (none to very severe). Two mean scores were obtained from the SMISQ: physical pain score and psychological distress score. The subjects of this study scored a mean of 3.1 on physical pain and 4.6 on psychological distress. These researchers noted that the patient's age, sex, and race had no effect on nurses' scores; however, no statistical tests for significance were documented in making this inference. However, intensity of the nurses' personal pain experience significantly predicted perceptions of patients' physical suffering, while those subjects who reported a religious preference inferred less pain than those who reported no religious preference.

Conversely, Wessman and McDonald (1999) found a negative relationship between nurses' personal pain experience and their pain management knowledge. This descriptive correlational study was a secondary analysis and consisted of 177 nurses who,,
during the first analysis, reported having personal pain experiences. During the original study the Nurses' Knowledge and Attitudes Survey Regarding Pain (NKAS) was used to ascertain nurses' knowledge of pain management. The NKAS was administered before education classes and after attending one to seven pain education seminars. Demographic data and a questionnaire regarding personal, family, and professional experiences with pain were obtained at the time of pretest only. The secondary analysis focused on those nurses who responded affirmatively to having personal pain experiences. Although nurses with previous personal pain experiences had lower mean pretest scores than nurses with no reported personal pain experiences, personal pain experience was associated with greater learning of the pain management knowledge ($r=0.19, p<0.05$).

Burokas (1985) found that nurses having offspring who had experienced severe pain was the only demographic variable that significantly influenced the nurses to medicate pediatric patients more frequently. Demographic variables that were not found to be significant were nurses' age, educational background, and personal pain experiences. Pederson and Bjerke (1999) also found a correlation between nurses' positive attitude toward pain management and having older children at home ($r=0.42, p=0.03$). Coffman et al. (1997) found that nurses who reported experiencing pain in self or close family members selected more indicators of patients' pain. These findings are consistent with reports about the top four most influential experiences of nurses on their administration of pain medication. These were (in descending order) clinical work experience, personal pain experience, basic nursing education, and experience with family member or friend in pain (Gadish, Gonzalez, & Hayes, 1988). The study offered no statistical analysis for the significance of this listing.
Inconsistencies in the association of personal pain experience and knowledge and attitudes of pain and pain management exist among the studies highlighted in this section. The use of descriptive designs, convenience sampling procedures, and variability in the measurement of pain and pain management may account for the discrepancies.

*Standardized Pain Assessment Tool*

The use of a standardized pain assessment tool is essential for effective pain management; however, several studies have documented the lack and sometimes the absence of a standardized pain assessment tool. Broome, Richtsmeier, Maikler, and Alexander (1996) used a descriptive design to examine how healthcare providers in United States teaching hospitals assess and manage children’s pain. The sample was recruited using convenience sampling and included 113 healthcare providers. Two-thirds of the sample were nurses and the rest were physicians. Seventy-two percent of the sample had a special interest and expertise in pediatric pain management. This could be considered a limitation to the study. Survey results showed that 27% of the respondents did not use a formal self-report scale and only 20% used behavioral assessment scales. Simons and Roberson (2002) found similar results among the 20 nurses included in the sample for their study. All 20 nurses stated they did not view standardized pain assessment tools as being necessary for effective pain management, although the children cared for by these nurses at the time of the study were assessed at moderate to severe levels of pain. These nurses felt that if the children were in pain, they would complain to the nurses. This premise would not be valid with preverbal children as they would not be able to complain, at least not specifically. Pederson and Bjerke (1999) further validated
that standardized pain assessment tools were not being used. Nurses in this study indicated only a moderate frequency of use of a pain rating scale.

Probst, Lyons, Leonard, and Esposito (2005) used a descriptive, correlational design to evaluate emergency department (ED) assessment and management of pain in pediatric patients as a quality improvement initiative. One hundred twenty-three nurse managers comprised the convenience sample and 933 charts were randomly selected for chart review. Surveys were sent to various hospitals and included both rural and non-rural facilities, with varying ED pediatric patient volumes. Chart reviews were obtained from 107 of the hospitals surveyed and included those charts of children who had an extremity fracture. The mean age of the patients was 9.4 years, but ranged from 0 to 15 years. Of those nurse managers who were surveyed, 83% reported easy access to a pain assessment scale, with a 92% reported use of a designated pain scale to evaluate a pediatric patient’s pain. Only 37% of the participants reported the use of a pain scale for infants and nonverbal children in rural hospitals and 42% in non-rural hospitals. A statistically significant increase in the use of a standardized pain assessment tool was seen with those ED having a higher pediatric patient volume (no statistics reported). Forty-four percent of the nurse managers reported that a pain expert was a resource within the hospital; however, there was no relationship between the presence of a pain expert and the participants’ use of a pain assessment scale ($P>0.05$, no other statistics given). Sixty-eight percent of the managers stated that the staff members were “comfortable” with their abilities to assess, intervene, reassess, give appropriate pain discharge instructions, and take pain histories. The findings of the chart review were not as positive as the managers’ responses. Only 59% of the charts included documentation of the use of a pain
assessment scale at some point during the child’s ED visit. The use of a pain scale as measured by chart review was one-third less than the survey results indicated. Limitations of this study include the use of a convenience sample for surveyed subjects. Although charts were randomly selected, hospitals were responsible for this process, but hospital staff members responsible for the research were given no training for the process of random selection. Psychometric measures were not addressed for the survey tool nor for the chart review tool, both of which were developed for the study. The actual chart reviews were completed by each hospital instead of by the researchers and no training was given for the completion of this process.

Coffman, Alvarez, Pyngolil, Petit, Hall, and Smyth (1997) used a descriptive, comparative design to describe how nurses assess and manage pain in critically ill children. Three research questions were posed: 1) what are the indicators used by pediatric ICU nurses in deciding to treat children?, 2) what nursing actions are used to manage pain in pediatric ICU patients?, and 3) how do pain indicators vary according to patient and nurse characteristics? Twenty-four pediatric staff nurses were selected using convenience sampling. Twelve of the nurses were ASN graduates, 8 were BSN graduates and 4 were diploma nurses. The average years of nursing experience was 10, with 5 years being the average for critical care experience and 2.8 years for pediatric critical care experience. More than 92% of the sample worked full time in the PICU. Only 30% had had a class in pain management. The hospital setting did not use a standardized pain assessment tool. Nurses were asked to delineate the pain indicators that were used in assessing children in pain. Responses included the following indicators in respect to response frequency of each: increased heart rate, increased respiratory rate,
irritable/fussy, verbalizing pain, increased blood pressure, tenseness/rigidity, squirming, drawing up legs, crying, procedure-related situation, grimacing/frown, tearing, patient request, guarding painful area, unable to sleep/rest, jittery/jumpy, increased intracranial pressure, whimpering/moaning, touching painful area, and inability to be soothed/comforted. Using these indicators, 112 observations from 25 assessments of patients aged 1 month to 18 years was carried out. The patient sample included 17 males and 8 females. Twenty-four percent were infants, 8% were toddlers, 12% were preschoolers, 20% were school-age, and 36% were adolescents. Fourteen of the patients were trauma patients and 15 had undergone surgery. Three patients were on ventilators with one being chemically paralyzed and two being sedated. Medical diagnoses represented were: fracture (36%), multiple trauma (28%), soft tissue injury (28%), abdominal injury (28%), head injury (20%), thoracic injury (16%), and pneumonia (16%). Cardiovascular and respiratory indicators were used most frequently in the nurses' assessments, followed by behavioral and neuromuscular indicators. The average number of pain indicators used during each observation was 5.3. Although nurses did have indicators that were used for pain assessment, these observations were only quantified by the number of indicators used, and this value most likely does not correlate with severity of pain. The use of these pain indicators does not allow the nurse to easily document improvement or worsening of pain levels. Findings were not generalizable to a larger population because of the small sample size and the limitation to one hospital. Another limitation of this study was the less than acceptable internal consistency rating (Cronbach’s alpha=0.54) of the observation tool used in the study.
The evidence showing a lack of use of a standardized pain assessment tool is overwhelming. This deficiency would be more understood if valid and reliable pain assessment tools did not exist for the preverbal population; however, several tools have been shown to have acceptable psychometric measures and have even been validated for use in other cultures (Merkel & Malviya, 2000; Schultz, Murphy, Morton, Stempel, Messenger-Rioux, & Bennett, 1999; Merkel, Voepol-Lewis, Shayevitz, & Malviya, 1997; Gharaibeh & Abu-Saad, 2002; Summers, 2001; Beyer & Knott, 1998; Soetenga, Frank, & Pellino, 1999). To be considered a pain expert, one might conclude that such a person would have the most up-to-date information regarding pain, pain assessment and pain management; however, no correlation between the presence of a pain expert and the use of a pain assessment tool appears to exist (Probst et al., 2005). Even when pain experts are located within the hospital, this does not mean that preverbal children benefit. Broome et al. (1996) found that 35% of teaching hospitals across the United States had pain services within the hospital; however, neonates were rarely seen by these services. The percentages of children seen by the services increased with the age of the child. The reasons for this lack of service to younger children are unclear, but the age of the patient has been a significant influence on the pain management behaviors of pediatric nurses.

Age of the Patient

Beyer et al. (1983) found that 6 out of the 100 subjects in their study were prescribed no analgesics at all following cardiac surgery. All six were children with a mean age of 1.05 years. Twelve children, all infants and toddlers, never received any analgesics during their first three and fifth postoperative days. Mather and Mackie (1983) found similar results; higher percentages of the younger and older age groups were
unmedicated than in the other age groups. No differentiation of ages in age groups was
given. This information, as well as some statistical data, would have strengthened this
study. Schechter et al. (1986) found that narcotics were less likely to be ordered for
younger children than for older ones. If narcotics were ordered, however, the amount
administered was not affected by the child’s age. In contrast, Probst et al. (2005) found
that children between the ages of 0 and 5 were offered opioids less frequently than
children between the ages of 6 and 16 ($P<0.001$, no other statistics reported). Higher
potency opioids were offered more frequently to children between the ages of 6 and 16
than to infants. Simons (2002) found a significant positive correlation between pain
scores and age of the patient ($r=0.6$, $p=0.005$). Simons’ findings also showed a positive
correlation between the administration of an anti-emetic and the child’s age ($r=0.66,$
$p=0.011$). There was no correlation found between the age of the child and the use of
anti-inflammatory medications. This study was part of a larger phenomenological study
(Simons & Roberson, 2002). Not surprisingly, Broome et al. (1996) found that the
younger the child, the less effective nurses believed their pain assessments to be. Pain
management was also believed to be less effective for the younger child.

The age of the child does have an effect on pain management. Inadequate
administration of narcotics and anti-emetics has been documented for the preverbal
population. Nurses are less comfortable with the very young child. This discomfort most
likely results from knowledge deficits, not only a knowledge deficit regarding pain and
pain management in general, but also a lack of knowledge regarding the availability of
appropriate pain assessment tools and, possibly, the value of using these tools.
Type of Surgery/Procedure/Medical Diagnosis

Schechter et al. (1986) found that diagnostic category played a major role in the narcotic dosing differences between adults and children. Similar narcotic dosing was found between adults and children with hernias; however, the narcotic dosing became less similar between children and adults with appendectomies, burns, and fractures. Diagnostic categories that required longer hospital stays also correlated with greater narcotic dosing discrepancies. Fractured femurs were found to require the longest hospital stay. Coffman et al. (1997) found that trauma patients received a higher average number of pain indicators than non-trauma patients. Nurses also selected more pain indicators for surgical patients and fewer for those patients on a ventilator. Conversely, Mather and Mackie (1983) reported that types of surgery had no influence on analgesic prescription, although no statistical data were given to support this finding.

Physicians' Prescribing Preferences

Physicians have the ability to order analgesics to be given as needed (PRN) or scheduled around the clock. Higgins, Turley, Harr, and Turley (1999) used a retrospective chart review to determine the following: 1) the rate of administration of around the clock (ATC) prescribed pain medication, 2) the effect of not giving prescribed ATC pain medications on PRN pain medication usage, 3) the differences in the administration of prescribed pain medication in preverbal children (under 2 years) and older children (over 2 years), and 4) documentation of nursing pain assessment before and after the administration of PRN analgesia to the study subjects. One hundred fourteen medical records of children who underwent surgery for congenital heart disease were surveyed. Of the sampled charts, ages ranged from 2 months to 18 years, with a mean age
of 5 yrs and 3 months and included 55 females. Two approaches were sampled for the surgical procedures: sternotomy and thoracotomy. Four subgroups were developed to account for age and surgical approach: sternotomy performed on children less than 24 months (n=21), sternotomy performed on children more than 24 months (n=55), thoracotomy performed on children less than 24 months (n=17), and thoracotomy performed on children more than 24 months (n=21). Data were collected on Day 0 (day of surgery) and Day 1 (first postoperative day). All patients had ATC acetaminophen ordered within the therapeutic range. Thoracotomy patients (n=38) were also given Bupivacaine 0.25% and this was also within therapeutic range. The percentage of administered prescribed ATC medications was highest in the sternotomy less than 24 months group and lowest in the thoracotomy more than 24 months group. Patients who were given ATC medications as ordered had a 41.7% usage of PRN medications, while patients who did not receive ATC medications as ordered had an 85.3% usage of PRN medications. Reasons why all ATC meds were not given is unclear. Interestingly, the use of the Wong-Baker FACES Pain Rating Scale was standard protocol for pain assessment on the pediatric ward and in PICU. Forty-three patients did not meet the 36 month minimum for the tool to be considered valid. Although the researchers mentioned the validity of this tool, no other tool was introduced for the younger children; instead these children were eliminated from part of the analysis. Only percentages were given without statistical analysis of significance. Having only one hospital represented is another limitation of this study.

Probst et al. (2005) found that of 54 responses, 41% cited the prescribing practice or preference of the treating physician as the major limitation of pain management. Some
researchers have stated that the need for interpretation by the nurse in PRN orders may result in poor analgesia (Schechter et al., 1986). Since nurses rely heavily on physician PRN orders to guide their choices for pain management strategies (Pederson & Bjerke, 1999), the inclusion of physician prescribing preferences in future research is suggested.

**Personal Attributes of the Registered Nurse**

As a result of the collection of demographic data in most studies, the possible influences of personal attributes of the nurse on pain management behaviors of pediatric nurses may be inferred. Salanterä et al. (1999) found a correlation between age and knowledge of nonpharmacological and pharmacological pain interventions. Knowledge of nonpharmacological interventions was highest for those nurses between the ages of 46 and 55. The younger the nurse, the higher were the knowledge scores for pharmacological interventions. The older nurses were more inclined to use nonpharmacological interventions, allowing the child to be more active in the process than younger nurses. Although no other personal attribute of the nurse was found to be of significance, personal demographics along with nurses' self-ratings of knowledge and formal knowledge scores only account for 10% of the variance of attitudes in pediatric nurses (McInerney et al., 2003).

**Conclusions**

Pain management continues to be a problem for many patients and rests largely with nursing professionals. Decisions to intervene or not intervene when a patient is in pain are made on almost a daily basis. Knowledge of pain management behaviors, specifically the factors that influence this process, are extremely important in improving
the pain management practices of nurses. The alleviation of pain is important, not only in reducing the patient’s present suffering, but in attempting to alleviate the potentially harmful effects of pain.

Factors found to influence pain management behaviors were discussed in this review. These factors include the nurses’ professional experiences, belief systems, education, personal experiences, knowledge levels, use of formal pain assessment tools, and personal attributes, as well as the age of the patient, and the physicians’ prescribing preferences. Associations among these variables were found to be inconsistent in some cases. It is not clear why discrepancies would occur in the light of the apparently similar research designs and methods applied. Brunier, Carson, and Harrison’s (1995) observations may lend at least partial explanation for the discrepancies. These authors reported that age of nurse, employment status, length of time as a nurse, gender of nurse, frequency of caring for patients in pain, length of time on unit, country of education, attendance at pain inservice, and highest level of education accounted for only 15% of the variance in nurses’ pain knowledge. Perhaps there are other significant factors that have not yet been identified due to the methods used in the majority of pain management research. These unidentified factors may be revealed through the use of qualitative research methods.

Although pediatric pain research has increased in recent years, preverbal children are frequently not included in the sampling. The most frequently sampled age group is those children between the ages of 7 and 12 (Maikler, 1998; Gadish, Gonzalez, & Hayes, 1988). This deficit may be due to the difficulty of assessing pain in preverbal children, even though behavioral pain assessment tools do exist. The need to focus on this
vulnerable population is evident. In-depth interviews of nurses who care for preverbal children in pain may elicit information previously overlooked by quantitative methods. Using a grounded theory approach, a model may be developed to more precisely guide nurses in their clinical practice and future research in this area. Once a model is developed, quantitative methods may be used to test the relationships within the model and, subsequently, test interventions intended to strengthen those factors that improve pain management behaviors in nurses.

One final concern of this author is why clinical nursing practice has not been significantly affected by the empirical findings of pediatric pain research. One might conclude that clinical nurses fail to value research in their area of expertise, or they may be unable to analyze and critique such research. Nurse managers and administrators may not model the importance of using significant research findings within their scope of practice. Only speculations can only be made at this point; however, qualitative approaches to the research problems revealed by this review may open the door to answering some of these questions.
CHAPTER III
METHODOLOGY

This section will include an overview of this researcher’s credentials for conducting a grounded theory study, description of the site and population, and description of the researcher’s role. An overview of the data collection process, data analysis techniques, and communication of findings will also be provided.

Researcher’s Preparation and Experience with Grounded Theory

In meeting the requirements for the research practicum as a doctoral student, I was able to participate in activities that provided a foundation for conducting this grounded theory study. In addition to an in-depth study of the primary and secondary grounded theory texts, I conducted and a series of interviews with nurses and performed the preliminary analysis of the results, and participated in a grounded theory seminar with my mentor and another doctoral student. In this seminar I engaged in substantive coding within a group/team context. I also had the privilege of talking with Dr. Barney Glaser on the telephone regarding my research topic. He considered the use of grounded theory methods for my study to be very appropriate due to inconsistent findings in previous research on preverbal children and pain management. He also provided several names and contact information for colleagues involved in similar studies.
Selection of a Site and Population

For this study, I interviewed registered nurses from various clinical settings in the state of Georgia who care for preverbal children (infants to 3 years of age) and work in a pediatric unit and/or a pediatric intensive care unit (PICU). Selecting nurses working at a variety of clinical sites allowed me to obtain different perspectives and not be limited to one particular unit or hospital. Nurses were also selected for participation who had a variety of ages and pediatric work experience in order to gain a richer understanding of pain management behaviors. A total of three sites were represented by the participants: 1) a 430-bed pediatric acute care hospital, 2) a 31-bed pediatric inpatient unit and a 7-bed pediatric intensive care unit (PICU) in a 413-bed acute care hospital, and 3) a 15-bed pediatric inpatient unit in a small acute care hospital.

Description of the Researcher's Role

Having been employed in Georgia as a nurse for almost 20 years, I know several pediatric nurses personally and they are aware of my research interest and were very supportive of my study. I also know several nursing administrators personally and felt that they would be supportive in my endeavor.

Selection of the Sample

My first participant was selected because of our acquaintance and because of her extensive background in pediatric nursing. I also felt that she would be honest with me during the interview process. My second participant was selected due to her similarities with the first participant in age, pediatric experience, and being a parent in order to assess for trends in interview responses. Subsequent participants were selected in order to give a
broader sense of the pain management process from the perspectives of nurses with less than 20 years of pediatric experience but more than 5 years of pediatric experience. Additional participants included nurses who were male, nurses who were parents with less than 20 years of experience, and those who had more than 20 years of pediatric experience, but did not have children. I also sampled nurses who had approximately 1 year of nursing experience; and nurses who worked in settings that varied from earlier participants. These work environments will be discussed in more detail in the Workload and Culture of the Hospital section of Chapter V. Each participant was selected based on findings as data were analyzed and the need to validate previous responses arose, or the need to give opportunities for variation and contradiction to occur (e.g. when does this response on the part of the nurse NOT happen?). This process is called theoretical sampling, which is the selection of a sample based on emerging theoretical questions (Glaser & Strauss, 1967). Being a registered nurse employed on a pediatric unit who cared for preverbal children were the only criteria for inclusion in the sample. I did not want to limit the sample in any other way so that I would not exclude nurse characteristics that might possibly explain the topic of interest for this study.

A total of eleven nurses were interviewed. Of these, 9 were female and 2 were male; 10 were Caucasian and 1 was Black. Their pediatric experience ranged from 1 to 30 years, with a mean of 14.09 years. Seven of the participants worked in the moderate-sized inpatient pediatric unit and/or pediatric intensive care unit; 2 participants worked in the small inpatient pediatric unit in a small acute care hospital; and 2 were employed at a large pediatric hospital (Table 1).
Table 1.

*Description of Sample*

<table>
<thead>
<tr>
<th>Demographic information</th>
<th>Female</th>
<th>N = 9</th>
<th>82%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>N = 2</td>
<td>18%</td>
</tr>
<tr>
<td>Caucasian</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>N = 10</td>
<td>91%</td>
</tr>
<tr>
<td>African American</td>
<td></td>
<td>N = 1</td>
<td>9%</td>
</tr>
</tbody>
</table>

| Type of hospital where employed        | Moderate-sized pediatric inpatient unit &/or pediatric intensive care unit | N = 7 | 64% |
|                                        | Small inpatient pediatric unit                                               | N = 2 | 18% |
|                                        | Pediatric hospital                                                            | N = 2 | 18% |

| Years of pediatric experience          | Range 1 - 30  | Mean 14.09 |

**Ethical Considerations**

Prior to the initiation of this study, approval was obtained from the Human Assurance Committee at Medical College of Georgia (Appendix). Informed consent was obtained from each participant, with the understanding that withdrawal from the study at any time was acceptable. Confidentiality was assured by conducting the interviews in a private setting of the participant’s choice and by preventing identifiers from being included in transcribed interviews. Although the interviews were audiotaped, tapes were coded with no identifying information regarding the participant. Audiotapes of the interviews were in my possession or secured in a locked cabinet when not in use.

**Theoretical Definitions**

As described in Chapter I, defining what exactly constitutes pain is a major problem for preverbal children since the standard definitions usually require self-report of
the pain experience. The International Association for the Study of Pain has defined pain as “an unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage” (“Pain terms”, 1979). According to the American Pain Society (APS), “pain has sensory, emotional, cognitive, and behavioral components that are interrelated with environmental, developmental, sociocultural, and contextual factors” (APS, 2002). Based on these two definitions, pain will be defined in this study as an unpleasant experience associated with actual or potential tissue damage that involves sensory, emotional, cognitive, and behavioral components that are interrelated with environmental, developmental, sociocultural, and contextual factors. Although the experience may be subjective, the need to self-report is not necessary.

**Data Collection Process**

Data were collected through semi-structured interviews of eleven nurses who care for preverbal children. Each potential participant was approached about participating in the study. After explaining the informed consent process, each participant signed the informed consent form. Interviews were scheduled according to the participants’ schedule and preferred time and setting. Settings for the interviews included a hospital, the researcher’s office, participant’s home, and by telephone. Permission to record the interviews was also obtained in every case. Interviews lasted an average of one hour each. Demographic information was collected to include: gender, race, and years of professional experience. Questions that were used to guide the interviews were:

1) What is pain management to you?
2) What information do you use to determine that a preverbal child is in pain?

3) When you have determined that a preverbal child is in pain, how do you decide what to do?

4) What are some of the factors that influence your pain management decisions?

5) Under what conditions do you manage a preverbal child’s pain well?

6) Under what conditions do you not manage a preverbal child’s pain well?

7) What is your biggest obstacle to effective pain management?

Upon completion of the interview, contact information was obtained voluntarily from the participants in case the need arose to clarify responses during the interview or obtain new information from the participants. Interviews were transcribed verbatim by the researcher. Transcribed interviews did not contain identifying information and any names mentioned on the audiotapes were symbolized by a blank in the transcription.

Data Analysis Techniques

The transcribed interviews were submitted to line-by-line analysis, also referred to as open coding or microanalysis (Glaser, 1978; Strauss & Corbin, 1990) for the substantive coding of incidents and thoughts discussed by the participant. These incidents were compared to other incidents in the data and sometimes outside of the substantive area of study. As concepts emerged, comparisons between those concepts and other incidents were made. This level of comparison brings out theoretical properties of the concept that enable the researcher to develop tentative hypotheses. Further comparisons were made between concepts in order to find relationships between concepts and their indicators and possible relationships between the concepts themselves. This level of
comparison constitutes the concept-indicator model on which grounded theory is based. Axial coding or coding along dimensions becomes part of the data analysis as categories emerge from the data. This process of continuously comparing on different theoretical levels is called the constant comparative method and is vital to the emergence of a grounded theory (Glaser, 1978). Memos were written to capture ideas about the constant comparative method and these were used to raise questions regarding possible relationships. These comparisons continued until higher levels of abstraction occurred and a rich, saturated core concept emerged.

Memos become the primary source from which to track the emergence of theory, decisions regarding theoretical sampling or methodological problems, changes in interview questions, and even concepts that are not pursued (Bowers, 1988). Grounded theory is also characterized by simultaneous data collection, coding and analysis. As analysis progressed, new interview questions were developed and the intentional selection of particular subjects was made to fill in gaps recognized through the coding process and the emerging theory. This process is called theoretical sampling (Glaser & Strauss, 1967).

Because a grounded theorist uses the framework of symbolic interactionism as a basis for the research study, the researcher is inseparable from his or her work; however, a balance between subjectivity and objectivity must be maintained (Strauss & Corbin, 1990). This balance allows the researcher to accurately interpret events or concepts as an impartial observer while being close enough to the data that subtle relationships or shifts in the data can be recognized. This balance is maximized through the use of the constant comparative method (Bowers, 1988). In this study, data collection, coding, and analysis
continued simultaneously until redundancy of concepts was noted, and no new properties of a category were found from additional data (Glaser & Strauss, 1967).

Premature decisions regarding hypotheses, core concepts, and even the relationships that are foundational to the theory are discouraged when using the grounded theory method, because such actions will usually result in a thin theory only applicable to a very narrow population (Glaser & Strauss, 1967; Glaser, 1978; Strauss & Corbin, 1990).

The Engaging in Tactics of Pain Management Model

The model constructed for this study, shown in Figure 1, is based on a central core of Engaging in Tactics of Pain Management, which incorporates the assessment and management of a pain episode. The encompassing oval labeled “Assessment” that contains the principal categories of engaging in pain management indicates the pervasiveness of assessment throughout the pain management process. The five conceptual processes in the center of the oval (Eliminating Other Sources of Discomfort, Judging Pain, Comforting, Medicating, and Letting Go) delineate the five phases of managing a pain episode. Assessing for pain is vital in recognizing that something is wrong with the preverbal child, but is just as important during the management process.
Knowing the Territory

Categorizing the Medical Diagnosis

Deputizing the Parent

Personal Attributes of the RN

Assessment

Categorizing the Medical Diagnosis
Deputizing the Parent

Eliminating other sources of discomfort

Judging Pain

Comforting

Medicating

Letting Go

Playing the Game

Culture of the Hospital

Workload

Figure 1. The Engaging in Tactics of Pain Management Model
Categorizing the medical diagnosis and deputizing the parent are the two processes associated with assessment. The arrows from assessment to each of the five processes involved in managing a pain episode show this relationship. The linear arrows between the five processes in the center show the progression from one process to the next. Although this is the most simple and direct path through the management process, the progression is not always linear and the process may be re-entered several times before resolution is achieved. The curved arrows at the bottom all lead to the final process of the management process -- Letting Go. At each phase of the management process there is a possibility that the pain episode will be resolved as a result of the nurse’s actions during that process; therefore, the management process may not necessarily include all processes. For example, if the nurse changes a soiled diaper or feeds the infant and the cues are resolved then the nurse moves from Eliminating Other Sources of Discomfort to Letting Go. Another example would be if a nurse moved through Eliminating Other Sources of Discomfort and Judging Pain into Comforting and the preverbal child’s cues were relieved with nonpharmacological interventions, the Medicating phase would be eliminated for that episode.

The arrow pointing to the medicating process from Playing the Game denotes the fact that Medicating is the only process that requires absolute collaboration with the physician. In cases in which the existing orders for medication are adequate, Playing the Game does not occur.

The boxes outside the oval show the intrinsic and extrinsic factors that influence the Engaging in Tactics of Pain Management process. The two boxes at the top show the
intrinsic factors – Knowing the Territory and Personal Attributes of the RN. The two boxes at the bottom show the extrinsic factors – Culture of the Hospital and Workload.

Summary

The methodological aspects of this study were presented in this section. The researcher’s credentials and role during the research process were discussed. An overview of the sites, population, and sample were also given, as well as the ethical considerations involved. The process of collecting and analyzing qualitative data was described in detail and the Engaging in Tactics of Pain Management model constructed for this study was explained.
CHAPTER IV

RESULTS

Pain management (PM) in preverbal children is an extremely complicated process involving a myriad of concepts that may be utilized in order to resolve a patient’s pain episode. At a cursory glance, this PM process seems to be no different than PM of patients in any age group; however, managing the pain of a preverbal child (PVC) is even more complex than that involved in caring for older children, adolescents, and adults.

A grounded theory approach was used in this study to explore the pain management behaviors and perceptions of nurses who care for preverbal children. All grounded theories are recognized by the presence of a core category that relates and helps to explain the other categories of the emergent theory (Glaser & Strauss, 1967). When the core category emerges as a process, the category becomes a basic social process (BSP) that describes variation within the pattern of behavior and includes at least two clear emergent stages (Glaser, 1978). This is the case for this study. The BSP for this study is **Engaging in Pain Management Tactics**. Engaging in Pain Management Tactics denotes a very active process of purposefully selecting courses of action or interventions that specifically address the dynamic assessment and needs of the PVC. This process begins when the PVC is admitted and does not end until the child has left the care of the hospital staff. There are two distinct processes within the process of Engaging in Pain
Management tactics: *Assessing For Pain* and *Managing Episodes of Pain*. Although these processes will be discussed separately, Assessing For Pain is intricately intermeshed within the process of managing episodes of pain. Assessing For Pain is a continuous process from admission to discharge, while managing episodes of pain occurs only during a pain episode. The path through Engaging in Pain Management Tactics may vary from one pain episode to the next and from one patient to another. The nurse may engage in certain tactics during a pain episode but then find that tactic to be less useful for another pain episode. As Engaging in Pain Management Tactics emerged as the BSP for this grounded theory, several concepts that influenced this process also emerged.

The concepts that influence Engaging in Pain Management Tactics can be grouped into two categories: intrinsic and extrinsic. Intrinsic concepts are the factors that pertain to the nurse as an individual, i.e., those things that a nurse brings with him or her into every nursing situation. These include those things that the nurse discovers to be relevant to those situations. The concepts identified were *Knowing the Territory* and *Personal Attributes of the RN*. Extrinsic concepts are those factors that are present in the environment in which the nurse works. Extrinsic factors are not easily changed and are, for the most part, out of the control of the individual nurse. These concepts are *Workload* and *Culture of the Hospital*. A detailed description of each of these intrinsic and extrinsic factors will be discussed as each one becomes pertinent in the PM process.

**Assessing For Pain**

The process of Assessing For Pain is an ongoing, continual process that begins from the moment that a pediatric nurse receives admission information regarding a
preverbal child (PVC) and lasts until the PVC leaves the pediatric unit. Although it seems counterintuitive that a nurse’s assessment would begin even before seeing the PVC, the medical diagnosis is a key component of Assessing For Pain, at least indirectly. The nurse categorizes the child into different levels of expected pain experiences according to the diagnosis. When the medical diagnosis is one that is traditionally accepted as a diagnosis with a significant amount of pain associated with it, the nurse is able to anticipate a course of pain experiences for the PVC commensurate with that diagnosis. Some of these painful diagnoses are sickle cell anemia (vaso-occlusive crisis), immediate post-operative states, gut problems, fractures or bone pain, cancer, malabsorption, and otitis media. When the medical diagnosis is one that does not generally have a significant amount of pain associated with it, the nurse does not anticipate pain experiences for the PVC. An example of a non-painful diagnosis would be a fever of unknown origin. Although the nurse anticipates a course of pain experiences for a particular medical diagnosis, the presence of a non-painful medical diagnosis does not preclude the continual, ongoing process of assessing for pain cues that may arise outside of what is expected for the child or may arise from complications of the original diagnosis or from the addition of new diagnoses.

As one nurse said, “You don’t correlate pain with, you know, fever but a child that’s got a chronic illness you would.” Categorizing the medical diagnosis allows the nurse to anticipate the presence and severity of pain, but does not allow the nurse to be certain that this will in fact be the case. Similar categorization occurs when a procedure is performed on the PVC. The procedure is categorized as painful or not-so-painful and the nurse anticipates appropriate pain experiences during and following those procedures.
For example, painful procedures would include lumbar puncture, surgical procedures, bone marrow aspiration and intravenous access. The categorization of the medical diagnosis does help to focus the assessment of a PVC when pain is suspected. When a PVC has been determined to have a painful diagnosis, the nurse may eliminate some tactics in the PM process by moving directly to pain medication rather than utilizing non-pharmacological interventions. One participant shared thoughts regarding anticipating pain:

If it’s a situation when you expect them to be in pain, if they’re a post-op patient or they’ve, you know, if they’ve got a diagnosis that suggests that they have pain; then you’re going to look for [pain] first.

Another participant noted:

We get a lot of babies now with sickle cell. And you know they hurt, you just don’t always know how bad they hurt. You know, it’s just a decision of which pain medication you’re going to give them ... the ones that really have the chronic illnesses that you know usually involve a lot of pain ... they’ve got like malabsorption and gut problems, things like that.

When the nurse bypasses tactics that have been determined to be less effective for a given pain episode and utilizes more appropriate tactics for that particular pain episode, PM becomes more efficient and expeditious. Although nurses probably categorize patients regardless of their age, this process seems to be much more important or influential in the interpretation of the presence of pain for those children who are unable to verbalize their pain experience.
Another concept that impacts assessing for pain is sensitivity. For the purposes of this study, sensitivity is defined as an increased awareness, heightened consciousness, keen attentiveness, or enhanced responsiveness. This sensitivity allows the nurse to identify early or subtle pain cues that may otherwise be overlooked or minimized. There are two concepts that are identified under the umbrella concept of sensitivity. First of all, the nurse being a parent increases the nurse’s sensitivity for the PVC when assessing for pain. Being a parent does not seem to affect the nurses’ interventions or management of pain, but does give them an increased sensitivity compared to nurses who are not parents. If, however, the non-parent nurse has significant, consistent experience with preverbal children, this sensitivity may be equal to the sensitivity of those nurses who are parents. All participants who were parents stated that they had an advantage over and sensitivity to PVC that non-parent nurses lacked. Interestingly, most non-parent nurses agreed with this statement:

[Becoming a mother has] made me aware. I don’t know if [my pain management style] changed. [My experience with my child being in pain] made me realize that sometimes they’re not pulling at their ears or they’re asymptomatic and in excruciating pain – just on behavioral [changes].

Being a parent offers the nurse daily opportunities to learn normal growth and development, recognize a distinction among cries, and recognize possible reasons for irritability other than pain. Being a parent also allows the nurse the opportunity to deal with a PVC who might experience pain. When a nurse’s own child has experienced pain, sensitivity to pain in other children is heightened.
A second concept that fosters sensitivity is being connected. When a nurse is connected to a PVC/family, there is something present that draws the nurse to the PVC/family for one reason or another. For some nurses this phenomenon occurs when the PVC reminds the nurse of his or her own child, niece, nephew, or the child of a friend. Other nurses feel connected to a PVC/family when the family has special needs. For example, the mother of a PVC who does not speak English and needs extra attention in understanding complex discharge instructions may require the nurse to spend more than the usual amount of time with the family in meeting those needs. Just as nurses become connected with some PVC/families, there are other PVC/families with whom this does not occur. This does not mean that the nurses neglect or give substandard care to the ones with whom they do not connect. It is merely that the nurse is more willing to go above and beyond the standard expectation for the connected PVC/family. The nurse feels freer to spend more time with the connected family, and this allows the nurse to get to know the PVC’s behavior when he/she is pain-free, and to be able to pick up on subtle pain cues before more overt cues develop. One participant shared thoughts regarding being connected:

Just because I’m not really attached to the child, I’m not going to neglect the child. But I feel like this one that I’m more attached to—I’m going to have more time to spend with that one anyway as opposed to the one that I can’t … The patient … I’ll encourage that patient or the family to call if they need something for pain. While the other one that I’m attached to … well, we’re attached and I know that child, I feel like if I can … I know I would be lying because if we’ve attached more so than this one, I’d probably be around that one more, be able to
observe it more and assess the pain. Whereas that one, with the family I will encourage them to call for pain... I think I would be more proactive for this one over here, the one that I'm sort of attached to, I feel that I know them, maybe I've taken care of them longer so there is... the longer you take care of somebody, you're going to automatically... it carries some type of rapport by now, you know and so you do feel more freer in this room, more easier or more at ease or something in this room to go in more frequently or something. But the other room over there, you might, you know, you might ask 'call if you need something' or 'just let me know if I can do anything for you' or something like that.

The connected nurse knows the differences in the child's cry, knows how the PVC responds to different individuals, and knows the social boundaries of the PVC. This ability to assess the presence of pain earlier leads to more efficient management of pain episodes. When a nurse does not connect with a PVC/family, it is not the PVC who is to blame. The pediatric nurse becomes a pediatric nurse because he/she loves children; therefore, nurses have the capability of being connected with all PVCs. The mother, father, family member or guardian who is present with the child is really the deciding factor in whether the nurse becomes connected or not. For the PVC who does not have a parent or guardian present, the nurse may have a stronger connection, because the nurse becomes much like a surrogate parent. The nurse assumes the responsibility of feeding, nurturing, and caring for the PVC and makes sure that the needs of the PVC are met. This occurs through assigning these PVC to rooms closest to the nurses' station and, unless contraindicated, keeping the PVC in the nurses' station for close observation even during nap times. If the PVC is unable to be brought to the nurses' station for whatever reason,
the nurse makes more frequent checks to the room and may even elicit the help of nursing assistants to keep a close watch on the child. When the nurse is not connected to the PVC/family, the nurse will still check on the child but may ask the family to call if they need anything or if the child needs something for pain instead of frequently checking on the patient. All participants seemed at ease in sharing that they connected with some patients but didn’t with others. Most of them, however, were hesitant at first to admit that they did not give the same level of care to every single patient, although they were emphatic that this did not mean that they were negligent in their practice. On the contrary participants felt that pediatric nurses, for the most part, are good nurses and give good care; however, being connected usually results in receiving extras—extra time, extra attention, etc.—that are above and beyond the legal and ethical standard of care.

Pediatric nurses use various cues to identify the presence of pain. For the PVC, the nurse depends a great deal on the patient’s mother or father to contribute to the assessment process. The nurse trusts that the parent knows his or her child better than the nurse and, therefore, is able to add valuable insight into what may be going on with the child. When the parent states that the PVC is in pain, the nurse believes this to be true although the nurse will still conduct her/his own assessment to validate the parent’s input. For some nurses, the parent is the single most important piece to the assessment puzzle, while other nurses place as much importance on their own assessment as they do on parents’ contributions. There is such a strong feeling of trust for the parent’s input that the nurse rarely discounts it. Even if the nurse may question the parent’s judgment, most nurses would rather err on the side of giving pain medication when it is not needed than to ignore the parents and have the child suffer unnecessarily:
If I had to error in the fact, I would error in me not being able to assess the child as well as the mother would. If pain medicine was an issue, I would give them the pain medicine. Because if the child is hurting, and it’s my opinion that they’re not, then I’m leaving the child in pain. So I guess if I had to make a choice on which is the lesser evil, it would be giving someone pain medicine that they didn’t need.

Since the nurse cannot be in more than one place at a time, the parents are usually asked to let the nurse know if the PVC needs anything or if pain develops. Deputizing the parent allows the nurse to manage several patients while maintaining, at the least, indirect contact with each. Being able to rely on the parent to act as a liaison between the PVC and the nurse actually decreases the workload of caring for that PVC. There is even a sense of relief knowing that there is someone with the child on a consistent basis who knows the child better than the nurse. If the parent is present, the nurse always deputizes him or her as a credible resource for assessing the PVC. When a parent is not present, the nurse takes full responsibility for the assessment and care of the PVC. Although the act of deputizing the parent is extremely important and even routine for preverbal children, relying on the parents for pain assessment diminishes as the age of the child increases. The responsibility of pain assessment for older children and adolescents hinges more on the patient’s verbalization of his or her pain experience rather than the perception of the parent or even the nurse.

In summary, the pediatric nurse is able to anticipate the frequency and severity of pain experiences by the categorization of the medical diagnosis into painful or non-painful types. Although the diagnosis is considered, the patient’s individual tolerance for
pain is also taken into account. Categorizing the medical diagnosis influences the assessment of pain; however, the nurse engages in other tactics in this process as well. Sensitivity to pain in preverbal children is influenced by the factors of being a parent and being connected. These concepts do not necessarily change the process of managing episodes of pain, i.e., what the nurse does as a result of a PVC being in pain; but it does have an effect on the nurse’s ability to identify subtle or early cues of pain. Recognizing subtle or early cues of pain increases the likelihood that pain management will be expedient and more effective than waiting until cues are obvious and pain is more intense. Assessing for pain is also impacted by the presence of a parent at the PVC’s bedside. The nurse is able to deputize the parent as a knowledgeable and reliable source for assessing the PVC. When a parent is present, the nurse has added assistance in keeping a close watch on the young patients for whom she/he cares. When a parent is not present, the nurse must assume the full responsibility of assessment and care for the PVC. This assumption of additional responsibilities increases the workload of the nurse and may effect PM directly with that child or indirectly with other patients.

Managing a Pain Episode

Assessing For Pain continues until some cue signifies to the nurse that something is wrong with the PVC. Once a cue is observed, the nurse then moves into the process of Managing a Pain Episode. Assessing For Pain not only continues but is a vital component in the successful resolution of the pain episode. There are five phases involved in Managing a Pain Episode: Eliminating Other Sources of Discomfort, Judging Pain, Comforting, Medicating, and Letting Go. These phases do not necessarily occur in
a linear fashion but rather make up a complex, interactive process. In the presence of a single cue or a variety of cues, the nurse is faced with pieces of a puzzle that must be put together or solved in order to bring resolution to the pain episode. The episode may end up not even being pain but because the nurse is working with PVC who cannot verbalize what is wrong, the nurse must be open to any explanation for the cues. Much like putting a very complex jigsaw puzzle together, when the nurse has one small piece of the puzzle or one that could fit just about anywhere, the ability to see the clinical or assessment picture is extremely difficult. The nurse attempts to find other pieces to the puzzle in order to augment his or her ability to properly interpret what is going on with the PVC. Ambiguity of cues causes delays in positively resolving pain episodes. When the nurse has several pieces of the puzzle that obviously fit together to form an assessment picture of pain, the nurse is able to move through the managing process with little delay. The quantity and quality of cues does have a tremendous impact on the tactics that the nurse chooses or perhaps eliminates in Managing a Pain Episode. Although some of the phases of the managing process occur simultaneously, each phase will be discussed separately and presented in a linear fashion.

Eliminating Other Sources of Discomfort

In caring for patients who are unable to give specific information regarding the source of their discomfort or pain, the nurse works almost in a process-of-elimination mode to arrive at an appropriate interpretation. The nurse starts with basic explanations, then simple ones, and moves to more complex sources. In caring for each patient, there seems to be a consistent checklist of possibilities at the beginning, and as each is eliminated, the list becomes more diverse. The initial items of elimination are hunger,
soiled diaper, desire to be held, and need to pacify. The nurse assures that these are done before moving on to other causes. Meeting these basic needs may take only seconds. Some nurses prefer to perform these tasks themselves, regardless of the presence of a parent, while other nurses verbally validate that the needs have been taken care of by the parent. One participant elaborated on this: “99.995% of the time, there’s a family member ... so I kind of take into account that that’s already taken care of. Which is usually the case.” This phase may even seem overlooked when pain cues are more obvious but the nurse still seems, at least in a routine-sense, to assure that these basic needs are met before looking elsewhere for a better explanation of the cues. One participant recalled:

Evaluating the situation ... making sure that they’re comfortable ... they don’t have a wet diaper. That they aren’t hungry. That you’re taking care of ... all of their needs and then evaluating if it’s truly pain ... so you try to comfort them and hold them and then eliminate.

Another participant added: “The first thing that you do is the immediate ‘well, let me see if I change their pamper and hold them or let me cut the TV on and if I sit and hold them and we watch TV.’” When the PVC has other obvious sources of possible discomfort, such as fractured leg, surgical incision, etc., the nurse will attempt to eliminate these as well. For example, the fractured leg of a PVC may have slipped off the pillow and be lying in an awkward position. The nurse realigns the leg in an effort to see if this misalignment is the cause of the pain cues. Or if the child’s position looks as if it might be contributing to the discomfort, the nurse may reposition the child to see if this could be the cause. As one participant explained:
If I see a child with a leg in a cast or in traction and it’s just dangling out to the side or maybe hanging half way down off, the pillow’s off the bed, no ice or anything ... we try with the elevation and repositioning and stuff like that first.

In this type of situation, eliminating the cause of discomfort actually becomes the intervention that resolves the pain episode. If the cues are alleviated or relieved by providing these basic needs or providing these diagnosis-related nonpharmacological interventions, then the nurse moves on to the Letting Go phase (to be described later) of Managing a Pain Episode and quickly exits this phase and resumes the Assessing For Pain process only until another cue triggers the managing process. At the onset of every possible pain episode, even with the same child, the nurse will go through this same elimination process. On the other hand, if the cues continue, the nurse critically looks at all the pieces that are present and decides that the child must be in pain. The persistence of cues even after attempting to eliminate other sources of discomfort guides the nurse to the next step in Managing a Pain Episode, which is Judging Pain.

**Judging Pain**

Cues that usually lead nurses to the interpretation of pain include changes in vital signs, crying, positional changes such as drawing legs up to abdomen, medical diagnosis, change in interaction with nurse or parents, being very clingy for an otherwise social child, inconsolability, grimacing, etc. The parent’s input is extremely important at this time, as was pointed out earlier in the discussion on assessing for pain. Some nurses label the parent as their primary gauge for whether the child is in pain or not. If the parent says the child is hurting, then the child is hurting. Other nurses place great importance on the parents’ input but continue to carry out their own judgment on the situation. “It does
make a difference if I know someone’s in there, I won’t see them as much, won’t go in there as much as if I know a child is alone, then I will assess them more.” Of course, for the PVC without a parent present, the responsibility of assessing, interpreting and managing pain of a PVC lies solely with the nurse. The nurse lacks the assistance of the parent to aid in identifying early or subtle cues to satisfy those basic needs that may be the cause of discomfort. The inability of the nurse to deputize the parent as an assistant may delay or prolong the pain management process. One participant explained:

Well, just because I know they’re by theirself [sic] and depending on what the condition may be, you’re just more alert to going in there and checking on them a little more frequently. Just to make sure that they are comfortable, you know, they aren’t laying there crying.

When the nurse has determined that pain is present, interventions must be carried out to resolve this pain episode. Interventions for pain may be divided into two categories: Comforting and Medicating. Although the nurse may select tactics of comforting interventions or medicating interventions alone to resolve the pain episode, situations may prove to be more complex, requiring the nurse to select multiple comforting and medicating interventions simultaneously.

Comforting

When the nurse has eliminated all other sources of discomfort and has decided that pain is the interpretation of all those cues, the nurse begins to intervene for the PVC by carrying out non-pharmacological interventions. During the phase of Comforting, the nurse uses interventions such as distraction or consoling to alleviate the pain cues. Distraction techniques may include watching TV or reading a book to the child and
consoling activities may include holding and/or rocking the child and offering a pacifier. “We’ll try the hot/cold thing if that works, positioning, rocking, you know, music, distraction, anything that we can do.” This phase may seem very similar to eliminating diagnosis-specific causes of discomfort; however, tactics in the Comforting phase are not diagnosis-specific but more generalized, traditional non-pharmacological interventions. If comforting alleviates or relieves the cues, the nurse moves to the Letting Go phase and quickly exits the managing process but continues Assessing For Pain as before. If, after a short period of Comforting, the cues continue or even worsen, the nurse moves to the Medicating phase. The nurse may initiate comforting measures before giving medications, since most comforting measures can be performed immediately and without regard to time limitations. Under the conditions of the pain cues being obvious and intense, or the medical diagnosis being categorized as one associated with a significant amount of pain, or a recent history of the PVC needing pain medication on a regular basis, the nurse may move swiftly to Medicating the child, bypassing the Comforting phase. If Comforting is bypassed, the nurse may incorporate these interventions after Medicating to enhance the effect of the medication. “I know they’re in pain, I’m gonna give them some pain medicine and then do their comfort measures, too. For no other reason to … get the maximum out of my pain medicine.”

**Medicating**

The Medicating phase is the stage in which pharmacological interventions for pain are employed. When the nurse decides that the PVC needs pain medication, the nurse looks at the medication administration record (MAR) or medication profile to see what the child’s doctor has ordered for pain. If the nurse finds a medication that she/he
deems commensurate with the amount of pain that the PVC is experiencing, the nurse will administer that pain medication and may continue the comforting as well until the cues subside:

Usually, I’ll review their med sheet, you know. If they’ve got something ordered for pain, I’m gonna give it to them if it’s within time. And if they’ve had something and it’s not working, then I’m going to call the doctor and, if they don’t have anything, then I’m going to call the doctor.

If, however, the nurse finds something that is not suitable for the pain or finds nothing ordered for pain on the MAR, the physician becomes a large factor in managing this painful episode. If a less potent medication is ordered but not suitable, the nurse may choose to give that medication to the PVC to take the edge off the pain while other alternatives are sought:

If I have something I can give them right then that may even just take the edge off, I’m going to try to go ahead and do that. Do everything in combination that I have right there at my disposal ... if Tylenol’s just not going to help them, then I’ll put in a call to the doctor.

Ideally, when the nurse finds that there is a need for more potent pain medications or a need for an initial order for pain medication, the physician is called and, in turn, gives the order. Although this ideal situation does happen, there are times when many nurses feel that they must play games with the physicians to get what they want. “You try to say [to the doctor] this just doesn’t seem to be working, can we try something else? And you know, you have to play with your doctors and their personalities.”
Playing the Game

Playing the game is only relevant during the Medicating phase of Managing a Pain Episode. Nurses can assess all they want with whatever method they choose without a physician’s order. Nurses can eliminate other causes of discomfort and even engage in tactics of non-pharmacological interventions as often as the nurse deems necessary without the physician’s order. The only point in this grounded theory that is impacted by the physician’s input and the subsequent need to play the game is during the medicating phase. More specifically, Playing the Game is only needed when appropriate medications are not initially ordered or there is a change in the PVC requiring stronger pain medication than what is already ordered. Whichever the situation, the nurse is required to make contact with the physician in order to make a request for his or her patient. Some nurses never play games with the physicians. This may be due to the presence of mutual respect between the physician and the nurse. The nurse may have a long-standing reputation with the hospital and has built a trusting relationship with the physicians. One participant who claims not to play games had this to say:

I’m just here for my patients...and just trying to do the best job. I can’t get into the playing of games. Even though I have seen it done...some of the doctors are more receptive, you know, to my opinion, you know, an older, experienced nurse’s opinion.

Another participant remarked, “You know, most of our doctors are real easy, you know, ...now I’ve been there a long time and they trust my judgment. They know if I call them, I need them.” Other nurses don’t play games with the physician because the culture of the hospital is such that PM is a priority, making the physicians much more
amenable to nurse requests for additional orders for pain medication. Physicians who work in such hospitals are encouraged to write initial pain medication orders that are appropriate and therapeutically-dosed, eliminating the need to engage in game-playing.

It is such a big drive right now with Joint Commission, to have pain free, and it was supposed to be the fifth vital sign. And, I mean, this has been going on now for at least five years. And I think that’s what has driven us to be more and more [PM-minded]—although I think most of the nurses have always been. We’ve always believed in pain management, because our kids—we have multiple traumas, they’re just so critical that we believe in pain management. Now, there are some physicians that are harder to get along with, but I think that their peer pressure up there is so strong for people to excel that, like I say, if you don’t excel and you’re not part of a team ... you don’t stay very long.

When the nurse can avoid Playing the Game, PM becomes more efficient and expeditious. Playing the Game is a complicated but major concept. The game usually consists of two players—a physician and a nurse. Each player may have one distinct, consistent tactic that is used, regardless of whom they are playing with. In other cases, a player may take on a variety of tactics that may change from one situation to the next.

The ultimate goal of the game, for the nurse, is to have his or her patients’ PM needs met. The actual game that is played varies with the tactics that are adopted by each player, but ranges, for the nurse, from wheedling and manipulation to making the idea seem as if it were the physician’s idea. For the physician, the games may range from being godlike to not calling the nurse back. Due to the complexity of this concept, only the major roles engaged in by players will be described here.
Resistant player. If this player is a doctor, he/she is resistant to writing orders for pain medication. These individuals feel that they know what is best for the child and do not need anyone to assist them in this process. Participants describe the resistant player, “If they’re not going to do it, they’re not going to do it”; “What’s frustrating is when you get some [physicians] that don’t believe children have pain or they’re not going to remember it, so they don’t need anything”; and “Some of them want to play God. It’s like ‘I’m the one who writes the orders so you do what I say’. They just want to be in control and they don’t want us telling them what they need to do”.

Resistant nurses may have characteristics of being judgmental, which interferes with their intervening for patients. These nurses are “cold-hearted”, “won’t go that extra yard”, “those that just do the basics. They don’t try to have interaction – just here for the 8 hours.” They also “just look after themselves”. “You’ve got nurses out here that feel like ‘well, that’s not my patient, that’s so-and-so’s patient. She’s gone to lunch’ … so they don’t go out of their way to take care of someone else.”

Cooperative/respectful player. If this player is a doctor, either he/she will order appropriate pain medication upon admission or as soon as the need arises, or he/she will order it when it is brought to his or her attention by a nurse. There seems to be a prerequisite of mutual respect for this to occur:

If you work long enough with a physician, that they trust your judgment, and you really can just call them and say ‘Hey, look, I know you’re busy. I’m busy, too. I need this for your baby. This is what he’s doing.’ That’s it. It’s a 2-second conversation. So, it depends on how comfortable the physician is with building rapport with you and respect and trusting your judgment.
If this player is a nurse, she/he approaches the doctor tactfully and respectfully to get what the patient needs.

*Uninformed player.* If this player is a doctor, he/she does not have the ability to make appropriate pain management decisions because he or she does not have the most up to date information available to do so. This type of player may have pain management knowledge but not understand the severity of the child's pain. These players may be perceived at times to be resistant, but clearly are not comfortable with PM of preverbal children. As a result, the younger the patient, the less likely the uninformed physician will be to order stronger medications such as narcotics. One might assume that this player is found only in older physicians; however, one participant was clear that age is not necessarily the deciding factor:

Up-to-date is not an older thing, it's a want-to-thing ... 'cause one of our physicians, he should be retiring and he reads more and every time you suggest something he's like 'well the new literature says this' and then we have another one that's about the same age as him and I don't think he's read anything in 20 years. So, I think the up-to-date thing is "want-to" on their behalf.

If this player is a nurse, he/she is less likely to be able to request appropriate interventions for his/her patients.

*Passive player.* If this player is a nurse, he/she may ask pain assessment questions during admission procedures but does not utilize or document what the parents say regarding the child's pain history and usual interventions used at home for pain. One participant describes a passive nurse as one who has "been at it a long time ... and has become complacent." This is the type of nurse that does just the minimum. "They don't
want to have to get out the narcotic”. The passive nurses just want to give Tylenol. They do not want to take the time to assess pain, chart the medication given and the responses to that medication. “I think they just try to get by with the least that they can do.” She/he is not assertive or aggressive in obtaining orders from doctors even when the patient needs something. “Unless somebody else says it … sees it and brings it up to the doctor then they’re fine with it.” One participant described the passive nurse as one who does not go the extra mile. They do not call physicians. This is due to not wanting to be “reamed” by the physician or get into trouble with the physician who is called. Passive nurses do not want to “make waves.” Sometimes passive nurses “worry themselves to death. And they’ll do everything they can think of. They just won’t call the physician.”

When this is the case, passive nurses might be more inclined to call physicians during the day than during the night shift. So the “time of day” affects PM, because the likelihood of disturbing the physician is greater during the night shift. The less-experienced nurses may be perceived at times to be passive, and, interestingly, are usually put on night shift. One participant made a distinction between a passive nurse and a lazy nurse. The lazy nurses may give pain medicine to “knock their patients out” so that they do not have to be bothered with the patient during the shift. Actually, in my experience as an educator, I was told about a nurse who sedates patients so that he or she does not have to deal with them during the shift. This instance was with adult patients. I verified this information with a nurse who works with this individual. The verifying person said that that kind of thing happens all the time, but management is so desperate for nurses that they will not do anything about it. This may be related to workload issues, a category that will be discussed later.
Whether passivity is due to laziness or fear, or increased workload, participants had recognized this behavior among staff. Fortunately, the participants who had worked with those who are passive found this characteristic among very few nurses. Physicians were not labeled as passive in relation to PM.

*Old school player.* If this player is a nurse, she/he would think that the doctor is always right and should not be questioned. This nurse would probably stand up when the doctor walked on the floor as nurses did many years ago. Similarly, some physicians were seen as the "old school doctor". Sometimes these physicians were perceived to be just fine, but the nurse must learn how to deal with them in order to get what the patient needs. These old school physicians are tough, resistant, and will not usually discuss their decisions with the nurses. Once again, the nurse learns how to get around them. The lack of participation in PM updates for these physicians is due in part to the feeling that their practice is satisfactory the way that it is currently conducted. As a result, some of these old school players share similar characteristics with the uninformed and/or the resistant player. "You just have to make it their idea. You just have to coax and wheedle and ... I think it's worse in the South. The older the physician, the worse it is.”

And there’s definitely some of those older physicians where you are just like ... you should have a little tray or something. They don’t even think that you’re capable of ... like my brain cells accidentally rubbed together—that’s the only way I get things done.

*Rookie player.* If this player is a nurse, she/he is a new nurse and may be what was defined by one participant as ‘gung ho’. "They’re pretty up on, you know, the newest pain management guidelines and stuff and tend to go by the rules more so than the other
nurses.” Unfortunately, the rookie nurse player is sometimes the recipient of intimidation from some physicians. “And that just in general, [some physicians] give the newer nurses more [trouble] sometimes until ‘well, you just got to be tough. Just got to be tough. Speak up to that man.’ He’s just a man.” This intimidation may result in the rookie nurse player being less likely to call the physician for additional orders and also results in the rookie nurse being perceived as a passive player.

If this player is a doctor, he/she is more up-to-date, willing to talk things out with the nurse and to give reasons for not ordering a particular medication.

And then you have the flip side where some of the younger physicians are, more or less, more of an equal. You know, they respect your judgment and you can actually sit and talk back-and-forth about what to try or what might be better or actually interested in your input. You’re not subservient.

Sexist player. This player is reserved for male physicians. These are the physicians that seem to prefer to deal with young, attractive nurses. If a nurse is beautiful, she is more likely to get what she is requesting. “In the South I think that’s rampant. Oh it’s so rampant. I mean, it’s just sometimes I’m like ‘I need my hair to be blonde. And I need the uniform to be v-neck’. It’s bad.” “I hate to say this but it depends on the physician but the prettier nurses, they have an easier time.”

Another game mentioned in the data was the failure of physicians to call back when paged. The nurse may have to call several times before the physician returns his or her call, or the physician may not return the call at all:

Sometimes [the physician] might not call you back. You just keep calling and calling. I have had that to happen one night. And I just went ahead and used what
I had, you know. Um, and the doctor just heard from the grandmother the next morning ... but I couldn't really do anything else right then.

This scenario could be a result of the resistant doctor or the old school doctor; however, it could also be due to some problem in the answering service or the pager function.

The list of players described above is not inclusive of all players involved in Playing the Game, but it does cover the major categories.

When the nurse is able to get what is needed for the PVC, whether through existing orders or through winning the game and obtaining a new order from the physician, the PVC is medicated for pain. If the PVC’s pain cues are not relieved or alleviated, the nurse re-enters medicating the child and may find herself/himself Playing the Game again in order to obtain more potent or more appropriate medications. This cycle may continue until positive resolution of the pain episode is obtained or until the nurse feels she or he has done all that can be done. Regardless of the outcome, the nurse then moves into the Letting Go phase of Managing a Pain Episode.

Letting Go

Letting Go is the closure to a painful event. Usually, the nurse is able to relieve or at least partially alleviate the PVC’s pain cues, resulting in a positive resolution of the pain. When this occurs, the nurse moves out of the managing process and continues Assessing For Pain until another pain episode is suspected. For most nurses this brings about a sense of satisfaction that is the only reward for effective pain management. On the other hand, when the nurse has been unable to relieve or alleviate pain for the PVC, there is a Letting Go that is not accompanied by reward but by the frustration that the
nurse has done everything that she or he could do within the scope of practice or within her or his abilities. This may occur as a result of the physician being unwilling to give new orders or perhaps the nurse being unable to contact the physician to get new orders. The end result is that the nurse feels that there is nothing left for him or her to do and the outcome is out of her or his control. One participant recalled:

You do the best you can but you can’t hold on to it forever. You can only do so much. I came to realize that you can exhaust all your avenues of how to get something done, if you strongly feel it.

The sense of frustration is very apparent in another participant’s words:

Sometimes your hands are tied ... I called the physician 3 times or so. You know my hands were tied. Did I manage their pain? I did everything I could—No. But my hands were tied. Sometimes you just can’t, you just miss the boat when the child is so agitated that you’ve missed that window of opportunity. Where you’ve gotten the pain medicine, they’re OK.

The sense of disappointment and dissatisfaction is real but does not happen very often. When the nurse has to let go of a painful episode, she/he moves out of Managing a Pain Episode and continues Assessing For Pain as before.

**Summary of Managing a Pain Episode**

In summary, there are five phases of managing a pain episode: Eliminating Sources of Discomfort, Judging Pain, Comforting, Medicating, and Letting Go. The nurse may engage in tactics from each of these phases in a linear fashion; however, pain episodes may require more complexity in the tactics needed for resolution. The nurse may select tactics from Eliminating Other Sources of Discomfort and then identify tactics
in Medicating that are needed more immediately than tactics from other phases. Cues may be eliminated during the first phase through the provision of basic needs. This would allow the nurse to move directly from phase one to the Letting Go phase. Until a pain episode is resolved, positively or negatively, the nurse can re-enter any phase at any time to provide the necessary tactics for pain resolution. The process of Engaging in Tactics of Pain Management is affected by intrinsic and extrinsic factors. Intrinsic factors include Knowing the Territory and Personal Attributes of the RN. Extrinsic factors include Workload and Culture of the Hospital. Explanations of each will be included in the discussion to follow.

Factors Affecting the Process of Engaging in Tactics of Pain Management

Intrinsic Factors

Intrinsic concepts are the factors that pertain to the nurse as an individual, i.e., those things that nurses bring with them into every nursing situation and includes those things that nurses discover during those situations to be relevant. These intrinsic factors are Knowing the Territory and Personal Attributes of the RN. These factors result from a variety of professional and personal sources.

Knowing the Territory. This is an extremely important aspect of pain management because it affects every point of the process. This intrinsic factor results from several different factors that come together to define how well the nurse knows the physical, intellectual, and professional surroundings of her/his environment. Knowing the Territory is built on a foundation of pain and pain management knowledge. This information is usually obtained during the nurses' academic experience but may continue after their
degrees are obtained through in-service training and continuing education programs. Without this knowledge, the nurse has no accurate reference of what pain is, how it may be expressed, and how to safely manage that pain in the PVC. As one respondent said:

What I see is a lot of the newer nurses, they appear more attentive to pain situations, um, I think for the simple fact that they are more educated when they first come in. ‘Cause there is so much study ... so much more study and um, you know, information out there about pain control.

Within the realm of Knowing the Territory, the nurse’s experience is also very important. One participant felt that experience was so important that “it overpowers the other stuff.” In most research studies, experience is defined as the number of chronological years in general or in pediatric nursing. The definition of experience for this study emerged in a nontraditional sense; instead of being chronology-based, it is relevance-based:

The best rule of thumb is what you’ve seen. Absolutely, I can walk in the door and say ‘that’s his belly hurting’, that’s post-op pain’, ‘that’s they miss their mommy’, you can tell from the difference in the cry and the behavior of the baby and that only comes ... because I don’t have children. That only comes from seeing them, I mean, it really only comes from ‘oh, my last baby that had that diagnosis, that’s how they were acting’ and it really just comes from that.

For example, the nurse who has been in pediatric nursing for 15 years, but who has cared mostly for normal newborns and has little experience with the PVC in pain has much less relevant experience than the nurse who has been working on a pediatric burn unit for just 3 years. The more experience the pediatric nurse has with PVC in pain, the
more likely she/he is to be able to recognize pain cues and be able to quickly proceed through the process of elimination for the PVC. Because experience is so important, there is a mechanism by which a new graduate, or even a newer nurse to pediatrics, can go to the more experienced nurses to validate assessment findings or to seek advice on what to do when a child is in pain:

[If a new graduate] thinks a child’s in pain and [is] not sure … come get one of us and we’ll go over it together. You know, because you know it’s just a learning thing. So that they have us as their backup. But we try to teach them to be sympathetic and compassionate and not assume anything.

Another participant added:
You can get a certain knowledge out of books, but there’s an awful lot of experience out there from people who’ve been working and looking at it. That experience counts just as much as that person that wrote the book. Sometimes the person that wrote the book is in an ivory tower and he’s going with everything else and not experiencing it. I think experience counts an awful lot. And we’ve got a lot of experienced people up there. Even agency people who are very good at what they do—usually adults, when they get to peds, you know, they need a little help along.

Relevant experience guides the nurse through the managing of pain episodes more efficiently and with greater expertise. The assessment skills of an experienced nurse have been performed with such frequency that the nurse does them without much conscious effort. One participant had a lot of difficulty putting into words how she decided that a PVC was in pain:
It's hard to put into words what you do every day. A baby that has a real bad GE reflux, they arch their backs out and throw their arms back and it's a type of body movement that they do to try to get their self comfortable. [You learn that] at the bedside.

Another participant also shared feelings of this phenomenon:
I think it's still their assessment skills. Maybe they just been doing it so long it's subconscious. But I think it's still their assessment skills. They're still going 'look at that miserable baby doing this, this, and this.' It's probably just more on intuitive or subconscious level ... it's still assessment, probably more refined. They probably just have great assessment skills and don't think of themselves as assessing.

Relevant experience is having past experiences to which the nurse can compare the present circumstances. It is having a well of practice knowledge to draw from for validation. When the nurse doesn't have past experiences in a particular area or with a particular situation, the nurse is less sure of himself or herself and is hesitant to make judgments. The more relevant the experience, the more that is known about the territory.

Also included in Knowing the Territory is the nurse's ability or inability to work in the physical surroundings of the unit and its social boundaries. Orientation to the unit is one of the first aspects addressed upon employment of the pediatric nurse. Tours and scavenger hunts are easy tasks to guide the nurse through this process. Social boundaries are much more difficult to explain or even show to the new nurse on a unit. Social orientation may include learning the formal and informal lines of communication, when to call a physician, what to say when calling a physician, and how to respond to the
physician. This social orientation becomes extremely important if the nurse finds her/himself playing the Game in the managing phase. If social orientation is incomplete, the nurse may not feel capable of playing the game or feel confident enough to call physicians when needed, which may delay resolution of a pain episode. One participant noted:

And if you’re a newer nurse, you’re ignorant, as far as what you know you can do ... what your responsibility is and who you can call. You just don’t know all of your accesses—what you can do. If you got a private physician and the residents are covering that physician, well if the resident said no and they stop at that, well hey, you just go call and wake up the doctor.

Another participant added:

The new nurses work with the mentor or preceptor now when they’re first starting but they have to feel their way, you know, until they get, you know, used to everything ... to make their own decisions and be left alone to manage, you know. They have to feel their way in after they’re through the mentoring, but they still can come and question and ask the more experienced nurses at any time. They should feel free to ask if they have any questions, major decisions, or anything that they need to make.

Still another participant shared her thoughts on inexperienced nurses:

Waiting three hours to call the doctor while the baby cries would be the wrong thing to do ... the girls on our floor, they don’t know just ‘cause they’ve never seen it before. And there’s not a lot of older girls on nights to guide them.
Experienced nurses can look back to remember how they have changed from those early years of pediatric nursing. Although they may be very knowledgeable regarding patient needs and very opinionated today, their perceptions were very different when they started out. One participant remembered:

You don’t know what you want. You want your baby not to hurt but you don’t know what to ask for. I mean, I guess you can ask for that and you can say ‘what else can I do?’ And I remember doing that. But, it’s definitely a comfort level thing. Calling the physicians. Putting yourself out there to be chewed up.

The nurse must know when to call a physician, what information to give the physician, what to ask for, or at least know if what might be ordered is what the patient needs, and so on. The nurse who has previously called a physician would probably know those things and the nurse would also then have previous experiences with that particular doctor. Such experience would enable the nurse to anticipate questions/answers with future experiences with that physician. Relevant experience would also apply to this area of Knowing the Territory. For example, if the doctor “chewed you out” for calling about pain medication this time, there is a good chance that behavior will be repeated the next time that physician is called. For the calling nurse, however, this would at least allow preparation for receiving and responding to this situation in the future. Another example would be if a nurse has an easy time getting what she/he wanted for a patient from a physician, then the anxiety or stress over calling that physician in the future might be decreased or eliminated. The more exposure the nurse has to certain experiences, the more effective the nurse is in future similar experiences.
Knowing the Territory also encompasses obtaining pertinent and valuable information regarding the preverbal child. The process of knowing the child is expedited by the parent’s input regarding the child’s history, how the child normally exhibits pain, and what pain-relieving interventions are usually helpful in the home environment.

Knowing the child is a process that occurs through spending time with the child and incorporates getting to know the child’s baseline behavior, likes, dislikes, stage of growth and development, and social skills. The more time that is spent with the child, the more opportunities for interacting with the child occur; and, the more interaction that takes place, the better the nurse knows the PVC:

I like to go in there and talk to the family and the kids and stuff. And learn how and see how smart they are and play with some of their toys and stuff. So you know, I think it’s what you find important for yourself too.

Another participant added, “You have to kind of get, you know, a rapport going. Play with them a little bit and see if they respond with laughter and things like that.”

Another participant shared her thoughts on the benefits of spending time with the child:

I really probably know the child who’s alone better than the ones with the parents in the room because you’re in and out so much that you almost pick up on their little routine—well, you know, he’s crying ‘cause he’s hungry, he’s crying ‘cause he’s—just wants somebody to come in there, he’s crying ‘cause the TV just went off and because the TV went off and he has nothing to do or he wants some toys.

Knowing the child is also related to being connected (discussed previously). The difference between the two concepts is the presence of some degree of emotional
involvement in being connected. A nurse can know the patient without being emotionally invested in that child.

Knowing the Territory affects the entire PM process; from Assessing For Pain to the Letting Go phase of Managing a Pain Episode and back to Assessing For Pain again. Concepts included in Knowing the Territory consist of: knowledge of pain and PM, working in one’s physical and social environments, whom to call, when to call, what to say when the nurse calls, what to ask for in response to the child’s needs, and what to do when the child’s needs are not met. Knowing the Territory also incorporates relevant experience and knowledge of each child that is in the nurse’s care. All of these concepts play a role in how effective the nurse is able to function as a manager of pain. Although these concepts are relatively obvious, there are other intrinsic elements that are much more difficult to pinpoint.

*Personal Attributes of the RN.* There are factors that influence a nurse’s PM behaviors that seem to be vague or even, in a sense, unknown. These factors are best identified as those factors that deal with who the nurse is as a person, not necessarily who she or he is professionally. Interestingly, these factors emerged, for the most part, in describing nurses who were perceived to not be good managers of pain by their peers. One participant’s thoughts were that:

They just don’t have that nurturing in them or something. To me, it’s like nurturing, bonding, you know, compassion and if they seem cold-hearted normally that’s probably why they’re that way. I don’t know if they didn’t receive a lot of, you know, caring when they were growing up or what.

Another participant agreed:
Then I see some as a personality that they seem to be ... angry people anyway or you know, not the best, you know, chipper, happy people. And so, or maybe they’re having a bad day. And you know, they’re just not that concerned, you know. And that’s pretty sad to say about a profession that I love but, you know, that’s the reality of it. Um, I think it’s their own prejudice and judgment.

Still another participant commented:

The biggest part of it is just that who you are. You know that’s kind of what’s in your personality. I think some people just care more and are just, in any aspect of their life, is going to go that extra mile and take care, too.

Another aspect of this concept is the mindset of some nurses that does not foster effective pain management. Some nurses are inflexible in their thought process and do not handle change very well. They seem to lack the ability to think outside of the box for problem-solving purposes. One participant shared feelings about inflexibility:

I think it’s just the kind of person that they are. And then they’re probably like that in all aspects of their lives. They might not be people who think outside of the box so much. Because the child came in with the orders ... they might tell the mom ‘I’m sorry they can’t have anything else until such-and-such a time’ ... which is true but if that happens a couple of times, they’re not necessarily going to say ‘Hm. We need to re-evaluate this. Let me go ahead and call the doctor.’ It’s just a matter of ‘I’m sorry but you’re going to have to wait another hour.’ It just doesn’t occur to them and I don’t think that they’re mean or that they’re even making a judgment about the parent or the situation at all, it’s a matter of this is
the framework that I’ve been given to work within and I work within it. I don’t necessarily think about changing that framework.

These nurses may have difficulty altering daily schedules to accommodate admissions or unforeseen events during the day. One participant remarked about a coworker:

You know some people are just going to do what they have on their little list first. You know. Some people have to think that way. You know, ‘and I have to see all my patients and I have to write down everything before I go back and take care of these things.’ … I see some people who do that. Whereas most of us, if that person needs it, you take care of their need before you go to the next person. I think it’s just a mindset … she’s that way about everything. You know, she has a list and you got to get all this done before you can do this. And so, throw in an admission, you know, before she’s finished giving her meds and, oh, my … she’s off for the rest of the day. You know, ‘cause somebody kind of has to be on watch and say ‘well, what can I do for this one while you’re doing for that one?’ that kind of takes its toll after a while but luckily we only have like one or two that do that.

Nurses that are perceived to be more passive with PM are also perceived to be passive in their general personalities.

Regardless of the origin of these concepts, these are factors that are intrinsic to the nurse, factors that affect their PM behaviors. Personality, character, and even a nurse’s mindset may be blamed for ineffective PM, while being knowledgeable about one’s professional and social territory may be partially credited with effective PM. There are
other factors that influence the Engaging Tactics in Pain Management process; however, these factors are out of the nurse's control.

*Extrinsic Factors*

There are two extrinsic factors that emerged from the data. These factors are the *Workload* and *Culture of the Hospital*. Although these concepts will be discussed separately, Workload is also a part of the Culture of the Hospital.

*Workload.* This is probably the single most influential extrinsic factor for the process of Engaging in Tactics of Pain Management. Workload incorporates the number of patients, the acuity of the patients and the amount of time that pain management requires. If the nurse has several patients during a shift, effective pain management may not be feasible:

If I've got 7 other patients, I may not be as attentive as I should be and that's a problem sometimes. And then they [patients] have to stay there and cry and you know, they could be in pain but you may not be able to see about them right away. And that's hard.

Another participant explained further:

I think the biggest hindrance is the time factor ... the workload factor. I really do. I think a lot of things get overlooked because there's, um, we're too busy admitting or discharging patients. That a patient can call for a pain medicine and even the message doesn't get to us or we get there, it may be 20 minutes later.

Which is not acceptable but it can't be helped.

The same may occur with higher acuity level patients:
I’m a big advocate of giving pain medicine. I do try to make it priority but it can’t be the only priority. If I have a child in respiratory distress that needs to go to PICU and someone needs something for pain, I will tell a co-worker to do it, but if they’re tied up, you know, they’re going to have to wait because, you know, I have a priority.

Even common procedures can affect the nurse’s ability to carry effective PM:

Sometimes you might be caught up on pediatrics. You can be caught up in an IV room for a couple of hours sometimes and if we don’t have a med nurse, you know, if everybody else is also as busy as, you know, I am, um, sometimes the, you know, medication might be a little late getting there or something. Or, you know, they [patients] might have to wait a little longer before I can medicate them or get somebody who is able to ... free to medicate. That does impact pain and medicating, you know, for pain. That has a huge impact on it sometimes. We try ... most of the time, we try to have someone giving meds, you know, for us and that helps when we have that extra person.

When these or similar situations arise, the PVC without a parent present is more likely to be placed at a lower priority than their older counterparts:

I can see her going to the one that puts the light on every 3 or 4 hours asking for something for pain as opposed to the one that is laying in the bed maybe crying ... maybe she thinks it’s wet, maybe it’s hungry. She’ll get to it and feed it and change it and what not, whereas this one is saying that ‘I need something for pain. I’m in pain. I’m in pain.’ Yea, I can see where that might be.
Another participant shared an experience about a child whose parent was not present: “his needs were not being met as quickly as they would have been if he’d had a parent in there.” Managing pain episodes for the PVC is time-consuming. For the preverbal child, the nurse must make interpretations of what is going on with the child, eliminate other sources of discomfort, and then decide whether to use nonpharmacological or pharmacological interventions. Many times the nurse may find inappropriate pain medication orders, inappropriate pain med dosages, or no order at all for the preverbal child. “It’s sad to say that there’s just not a lot of attention paid to the children, you know, who are ... the preverbal kid ... from the doctors.” This process of pain management for the preverbal child then becomes more time-consuming, which then adds to the workload of the nurse caring for them. On the other hand, if the nurse already has an increased workload, the ability to spend the extra time in pain management may not be feasible at all or minimized at best. This situation is different for the nurse caring for older children, adolescents, or adults. In these cases the patient usually initiates the management phase with a call to the nurses’ station requesting pain medication. The nurses usually bring the medication with them to the patient’s room and may ask some qualitative questions of the patient, but usually take the patient’s word and administer the medication. Regarding pain assessment, the amount of interpretation is significantly decreased as the age of the patient increases. The younger the child, the more interpretation must occur in order for the nurse to make the best decisions for the PVC. “Pain management takes a lot of time. You know, you have to assess the pain, then you have to chart it, then you have to chart after they’ve been given the pain medicine and how they responded.” Another participant gave more detail:
The adolescents and the adults are a lot quicker to tell you they hurt. The babies—you really have to look at them. You really have to do a hands-on assessment. Because, sometimes, uh, it’s just the way you move them that they’ll start—they might be lying there real quietly and you move them a certain way and, you know, they start crying or grimacing or drawing their knees up and you can tell. I think it’s more hands-on with the babies and the preverbals. And the older ones, they—they will pretty much tell you when they’re hurting and you can question them and ask them, you know, ‘Does it hurt when I do this? Does it hurt when I do that? Does it hurt you to move, roll over, whatever, you know?’ And the babies can’t, or the little ones. I think with the little ones you rely on the parents and your own assessment. With the older ones—you’re going to listen to what they tell you. I mean if they say they’re hurting and, you know, ten, twelve, fourteen, an adult, I’m going to pretty much believe what they say.

When the nurse cares for a PVC whose management of pain is difficult or complicated, however, an even greater workload is placed on the nurse to manage pain effectively. Therefore, pain management affects and is affected by workload.

*Culture of the Hospital.* Before discussion can ensue regarding how this concept affects Engaging in Tactics of Pain Management, a clear definition of culture must be established. For this study, culture is defined as the atmosphere within which employers and employees of a hospital work. The culture is primarily developed by regulations and expectations of the administration of a hospital and is affected by many things, such as the type of hospital, type and amount of funding, mission statement, Joint Commission on Accreditation of Hospital Organization (JCAHO) standards, type of personnel hired, etc.
The personalities and attitudes of the staff and even the administration can have an effect on what kind of culture is fostered within a hospital. As for PM, there were basically three types of hospital cultures that emerged from the data. These cultures included a small 15-bed pediatric unit in a mid-sized acute care facility, a 30-bed pediatric unit in an acute care facility of approximately 460 beds, and a pediatric hospital. There was a distinct difference in the culture between the pediatric hospital and the other two pediatric units, although more similarities were found between the smaller pediatric unit and the pediatric hospital. The pediatric hospital ranks very high for patient satisfaction among pediatric hospitals. The pediatric hospital pays well and offers excellent benefits that are probably responsible, in part, for the low turnover rate of the staff.

I really don’t have an obstacle to it [pain management] because joint commission is so big on pushing pain control, especially in pediatric hospitals. We are really in to pain management. And, all you have to do, if it’s not working—if I give something and it doesn’t work the first time, I’m on the phone, I get an order for something else. If that doesn’t work, I’m on the phone for something else. And our doctors are—Surgeons are very receptive. Like if I say, well, you know, I’ve given Tylenol and Morphine—we like to give those two together, and, you know, if I’m still not getting anything, can I go with Toradol. And they’re really good about giving us what we need.

The pediatric hospital values its low patient/nurse ratio and the ratio is usually around 3:1.

Their concept of the nursing shortage—and everybody else’s is different—their concept of a nursing shortage is if you have six nurses and everybody has to take
three patients—that's a nursing shortage. I ended up the other day—we had 13 patients and we were going to drop down to two nurses. Well, see, they would never split that floor two ways. They got me two more nurses. So, it’s hard for, you know ... it’s just a different mindset up there. It’s totally different and [that is] because it’s pediatrics, I think.

The pediatric hospital has taken JCAHO standards for pain management very seriously and has set expectations and regulations throughout the hospital to excel in this area. The nurses and physicians are required to be proactive in, not only managing, but also in eliminating, pain experiences for their patients. This environment has had a positive affect on the ability of the nurse to be an effective manager of pain.

The whole focus is pediatrics. At 3:00 every morning, the nurses on night shift have to put the EMLA (topical cream containing lidocaine 2.5% and prilocaine 2.5%) on each child with standing orders on the antecubitals or wherever they think they’re going to draw their lab work and that way when the lab comes in at 4:00, they can draw the lab work. And if the EMLA cream is not on there, then they have to use Pain Ease that is a spray that you use. And if the nurse consistently does not put the EMLA on, she will be written up. So that gives you a sense of this is something that the doctors have pushed and the nurses—administration has pushed for it to be a pain-free environment.

The nurses in the pediatric hospital do not find themselves playing games with physicians to get what is needed for the patients. The nurses on the small pediatric unit did not play games very often either. Usually, Playing the Game was limited to new nurses as a way of initiating them into the medical world and with surgeons or other
specialists who were not very comfortable with pediatrics. However, if the nurses ran into a problem with these types of physicians, they merely called the pediatrician and got what was needed.

We have general surgeons who, you know, some of them do pediatric surgery. They are not used to it as much, you know. So we don’t have a specialist. So a lot of times they will, you know, order something that I just know is not going to be enough for them, you know, for PM. And so you know, I don’t go above their head but because they’re uncomfortable dispensing medications to kids this age, I’ll say ‘can I get a pediatric consult?’ You know, and then get a pediatrician to give me a dosage or whatever for that baby. ‘Cause the surgeons are, you know, terrified of dosing pain medication for babies.

The patient/nurse ratio in the smaller pediatric unit was also low, which also impacted workload to at least a certain extent.

Compared to the atmosphere of the pediatric hospital, the larger pediatric unit had many instances of nurses having to play games with physicians to get what was needed for patients. These incidents were discussed in detail earlier in this discourse. The nurses on this unit spoke often of being short staffed and not having as much time as needed for effective pain management. Standardized pain assessment tools, although not used consistently, were not even appropriate for preverbal children. One participant had worked in both types of cultures—a pediatric hospital and a larger pediatric unit. This participant was able to give a direct comparison between the two cultures and said that it was “like night and day”.
Summary of Factors Affecting the Pain Management Process

In summary, there are two extrinsic factors that influence the process of Engaging Tactics in Pain Management. These factors are Workload and Culture of the Hospital. The impact that each of these factors has on PM is varied. Both factors are beyond the control of the nurses and they must learn to work for the best outcomes that they can under the conditions that are present, whether constrained or flexible, in order to manage the pain of the preverbal children under their care effectively.
CHAPTER V
DISCUSSION

This section will include a discussion of the findings of this study and how they relate to the current literature. The concepts found in this theory were assessing for pain, being connected, being a parent, deputizing the parent, managing a pain episode, eliminating other sources of discomfort, judging pain, comforting, medicating, playing the game, letting go, workload, culture of the hospital, knowing the territory, and personal attributes of the registered nurse (RN). Assessing for pain and managing a pain episode are the two processes that occur in engaging in tactics of pain management. Being connected, being a parent, and deputizing the parent are concepts that are a part of assessing for pain. Playing the game is a concept that is only part of the medicating phase of managing a pain episode. Workload and culture of the hospital are extrinsic factors that affect the process of engaging in tactics of pain management. Knowing the territory and personal attributes of the RN are intrinsic factors that also affect the process of engaging in tactics of pain management. Limitations and strengths of this study will be included along with suggestions for further research and implications for nursing practice and education of nurses and others.

Pain management for patients of any age is an extremely complex and difficult task to undertake. Managing the pain of a preverbal child adds an extra layer of
complexity and difficulty for the nurse. The basic social process (BSP) of this grounded theory study is entitled Engaging in Tactics of Pain Management. Engaging in pain management tactics denotes a very active process of purposefully selecting courses of action or interventions that specifically address the dynamic assessment and needs of the PVC. There are two processes within the core BSP: Assessing For Pain and Managing a Pain Episode. These major concepts will be discussed in turn, as each pertains to the overall process of pain management.

Assessing For Pain

Assessing For Pain begins at admission and continues until the PVC is discharged. Assessing for pain is a continuous observation of the child in order to recognize changes that may indicate the presence of pain. Assessment is done using grossly defined methods until changes take place to cause the nurse to suspect pain. During a pain episode, assessment becomes more specific as it homes in on the severity, location, and possible cause of the pain. Assessing For Pain is influenced by the medical diagnosis or invasive procedure of the PVC, as well as being a parent and being connected.

Categorizing Medical Diagnosis/Procedures

Medical diagnosis/surgical procedures are categorized as either painful, less painful or non-painful. This categorization assists the nurse in anticipating pain experiences during the PVC’s hospitalization and occurs as a result of previous experience with that particular medical diagnosis/surgical procedure. When the nurse has cared for several patients with a particular diagnosis that has been painful, the nurse
creates a set of expectations for that patient (Benner, 2001). This knowledge set allows
the nurse to anticipate the PVC’s pain experiences and, therefore, become more efficient
at managing pain than when pain is not anticipated. The influence of medical diagnosis
on pain assessment has been identified in some studies (Coffman et al., 1997) but not in
others (Abu-Saad & Hamers, 1997). Anticipation of pain experiences does not preclude
ongoing assessments of the patient. The pediatric nurse knows that complications may
occur or new diagnoses may develop that may change the course of anticipated pain for a
PVC. Two factors emerged that affect the ability of the nurse to assess the PVC: knowing
the territory and sensitivity. Sensitivity is divided into two factors: being a parent and
being connected.

Being a Parent

Participants in the current study considered that being a parent does affect the
pain management behaviors of pediatric nurses. Being a parent does not change pain
management tactics but does increase sensitivity to pain cues in the PVC. The nurse who
is also a parent is able to recognize early, subtle pain cues more readily than the nurse
who is not a parent. These findings are consistent with other research findings that nurses
who had children of their own at home took less time to give pain medications than those
nurses who did not (Abu-Saad & Hamers, 1997), while another study (Burokas, 1985)
found that having offspring who had experienced severe pain was the only demographic
variable that significantly influenced the nurses to medicate pediatric patients more
frequently. The participants in the current study, however, also felt that being around
preverbal children in pain on a consistent basis over a period of time did seem to level out
the differences in sensitivity when comparing nurses who were parents to nurses who
were not parents. No research studies making this comparison were found in the literature; therefore, future research in this area is recommended.

**Being Connected**

Being connected is the presence of a special bond or attraction between a nurse and a PVC/family that results in a more personal relationship between the two parties and results in mutual benefits for both. When a nurse is connected to a PVC/family, the nurse is inclined to spend more time with the patient and, in turn, is able to get to know the child to a greater degree than other patients to whom she/he has not become connected. The knowledge obtained from knowing the patient results in earlier detection of subtle pain cues and subsequent increased efficiency in pain management. Factors that encourage this connection include a physical resemblance of the PVC to a family member or child of a friend or an increased need on the part of the PVC/family for the nurse’s help.

Being connected does not always occur and is usually not a direct result of the PVC but rather the parent or adult significant other who is with the patient. The absence of connection occurs as a result of personality incompatibilities, or even of the presence of trust issues arising from either party or both. Little is known about this phenomenon, especially as it relates to pain management. May (1991) found that involvement with patients was a central component to nursing care and happened at three levels: 1) primary involvement, which is characterized by familiarity and unproblematic interest in patients; 2) demonstrative involvement, which is characterized by a special attachment to a particular patient; and 3) associational involvement, which is characterized by professional distance and impersonal interaction. Although one nurse may be more
inclined to become involved at a particular level on a regular basis, a nurse most likely fluctuates between all levels throughout his or her nursing career. Primary involvement is defined as a general quality of nursing work and includes mutual exchange of information for the purposes of getting to know the patient for clinical purposes, but also includes exchanges of information outside of the hospital occurrences in order to fulfill social objectives. The combination of knowledge of the patient, reciprocity, and investment forms a different type of interaction than that of the controlled, superficial nurse-patient relationship that is accepted as the norm (May, 1991). Demonstrative involvement focuses on the nurse’s ability to penetrate the patient’s private character. Reciprocity does not occur at this level and, therefore, the interaction is one-sided and nurse-oriented. This level of interaction is difficult to maintain in the clinical setting and is usually found to be problematic for both the patient and the nurse involved. Associational involvement is defined as objective and detached interactions that occur solely for the purpose of caring for or curing a patient’s illness and is more in line with acceptable boundaries of a traditional nurse-patient relationship. This level of involvement avoids patient dependence on nurses and unequal division of labor that can occur with primary and demonstrative involvement (May, 1991).

Although the demonstrative level of involvement was not evident in the data from the current study, primary and associational levels were obvious. Being connected was similar to the primary level of involvement, while the inability to connect paralleled the associational involvement. The goal of associational involvement is for the care and cure of the patient’s illness and, therefore, a lack of connection should not be interpreted as a state of giving substandard care. Scharer (1999) found similar results between nurses and
parents and defined these levels of involvement as four patterns of interaction: engagement, disengagement, failure to engage, and working alliance. According to Scharer (1999), these patterns of interaction occur during the working phase of the nurse-parent relationship; however, the interactions that take place during the admission phase are crucial in setting the tone for the developing relationship. Engagement occurs when the nurse and the parent become emotionally connected and involved with each other. Factors that foster engagement are the parent’s openness, positive expectations of the nurse and parent, willingness to interact, a smooth, nonjudgmental admission process, physical and emotional availability of the nurse and the parent, willingness of the parent to learn, and compatible personalities.

In the current study, incompatible personalities were cited as reasons for not being able to connect with a PVC/family; however, time constraints due to increased workload were also highlighted as reasons for not being able to spend more time with patients and their families. In light of Scharer’s (1999) findings, increased workload could have a definite effect on the ability of nurses to engage with parents. Disengagement occurs as a result of some event that significantly diminishes or eliminates the ability of the nurse or parent to maintain interactions. These events include nurse’s time off or parents not being on the unit. Disengagement was not evident in the current data, but this study only explored the presence and absence of connection rather than degrees or levels between the two extremes. Any factor that prevents the nurse or parent from being physically or emotionally available to the other will most likely result in failure to engage. For the nurse, physical availability is often limited due to increased workload or scheduling
issues. Distancing attitudes, trust issues, disrespectfulness, and judgmental attitudes by either party may also result in a failure to engage.

The current study did not specifically explore the consequences of not becoming connected; however, Scharer (1999) points out that failure to engage has an impact on parent involvement and subsequent success for the child. Working alliance occurred when the nurse and parent spent extended periods of time together due to prolonged hospitalization or readmission to the unit. This alliance is defined by a mutual sense of trust, care, and confidence in each other's competency on the part of parents and nurses, and on a strong, positive attachment to the child by the nurse. The parent and the nurse are willing to go beyond each other's expectations. On a pediatric nonpsychiatric unit, hospital stays tend to be short; therefore, working alliances would rarely occur except for those who require readmission. Similar to the working alliance, McQueen (2004) suggests that when nurses and patients connect physically, psychologically, and spiritually, the nurse is better able to detect and act on cues, anticipate needs and wishes, and respond to all dimensions of the patient. This emotional attachment is considered to be pre-requisite to excellent nursing practice. In comparing Scharer's (1999) levels of engagement to those experiences of the current participants, being connected is more similar to that of the working alliance than those characteristics of engagement. If this is true, perhaps the development of relationships between nurses and parents on a nonpsychiatric unit occur more quickly than relationships on a psychiatric unit. This hypothesis remains conjecture until supportive or opposing evidence is provided by further research. Although there are benefits for the PVC/family who are connected to the nurse, one might question whether this connection actually takes the nurse away from
other patients resulting in inequity of health care. There is a strong sense of responsibility for the nurse to care for the PVC/family that is in her/his presence, in front of them (Nortvedt, 2001). Even without the connection factor, “the pressing needs of an increasing number of patients tends to force nurses to ration care in ways that may threaten the quality of patient-centered and individual care” (Nortvedt, p. 114). Attempts to maintain the status quo of traditional nurse-patient relationships and to maintain equitable care for all PVC/families may result in a subconscious move toward a distanced and impersonal nursing approach by some nurses. Nurses who experience being connected with their patients may subsequently experience intrapersonal and even interpersonal conflicts regarding the inequity of care, especially in an understaffed and overworked environment where time constraints are severe. In an attempt to give the best care possible, the nurse is able to recruit efforts by the parents in obtaining assessment data and performing nonpharmacological interventions. In this study, the phenomenon of delegating to a parent is referred to as Deputizing the Parent.

*Deputizing the Parent*

Deputizing the Parent occurs when the nurse has informally given a significant amount of responsibility to the parent for the pain assessment of the PVC. Participants in the current study spoke of a level of trust in the parent’s assessment of their child that enabled the nurse to rely on that assessment, sometimes solely in determining the presence of pain. Callery (1997) expresses concern over the use of the term parent when relating to mothers and fathers of hospitalized children. Callery concludes that the mother is predominately the one at the bedside unless extenuating circumstances prevail. This is also true of the current study, where the mother was the only parent to be singled out in
nurses’ assessment of pain in preverbal children. Every participant stated that the mother’s assessment of pain was extremely pertinent in the nurse’s judgment of pain; however, the father was not mentioned in this process. In light of Callery’s comments, this concept may need to be renamed Deputizing the Mother. Since the current participants did not recognize the father’s assessment of the PVC, trust in the paternal assessment may not be considered as being as valid as the maternal assessment, or just may not be as available as the maternal assessment.

Those interviewed for this study felt that the mothers knew their children better than the nurse and were able to reach more accurate conclusions, in most cases, of the presence of pain. The notion that parents are the expert on their children and that their assessments can be more accurate than nurses’ assessments is seen in the literature (Beyer, McGrath, & Berde, 1990; Coyne, 1995; Simons, Franck, & Roberson, 2001; Simons & Roberson, 2002).

Although most of the literature relating to parental participation in their children’s care deals with taking care of the physical needs of the child, few studies have focused specifically on exploring parental involvement in pain management (Simons, Franck, & Roberson, 2001; Simons & Roberson, 2002). These studies looked at the knowledge deficits of the nurse and the parent, as well as nurses’ and parents’ perceptions of the management of postoperative pain in children. Nurses and parents did not agree on perceptions of pain management and parents often felt uninformed of the child’s condition. This outcome was related to a lack of communication between the two parties. This communication problem may have occurred due to a lack of knowledge on the nurse’s part, resulting in uneasiness in responding to parents’ concerns. Parents were also
found to have a lack of knowledge regarding recognition of pain cues that had not been encountered before with the child, but which were common cues that nurses may see on a regular basis (Simons & Roberson, 2002). In these instances, parents did not assess the child to be in pain and subsequently did not prompt the nurse to intervene. Even when the parents felt that the child was in pain, they did not approach the nurse to share this information. Apparently nurses were not aware of parental reticence, because the nurses relied on parents to inform them of their children's pain (Simons & Roberson, 2002).

Study participants also relied on the mother for accurate pain assessments and to inform the nurses of their children's pain; however, the current study did not explore whether nurses made this expectation clear to the mothers. The consistent level of trust and dependence on the mothers' assessment of pain in their PVC in the current study is not evident in the literature. Deputizing the parent relies on a partnership between the parent and the nurse, at least where pain assessment is concerned. This partnership results in a decreased frequency of checking on and assessing the PVC and subsequently decreases the workload of the nurse. When the nurse recognizes that a change has taken place in a PVC, or the mother has informed the nurse of pain cues in the PVC, the nurse suspects pain and moves into the second process of Engaging in Tactics of Pain Management, i.e., Managing a Pain Episode.

**Managing a Pain Episode**

Managing a Pain Episode is the second process of Engaging in Tactics of Pain Management. This process begins when the nurse suspects that pain is present. There are five steps in managing a pain episode. These steps do not necessarily occur in sequence,
nor is every step included in every pain episode. The nurse may even return to steps in
the managing process if interventions have not been effective. The five steps in managing
a pain episode are: 1) Eliminating Other Sources of Discomfort, 2) Judging Pain, 3)
Comforting, 4) Medicating, and 5) Letting Go.

_Eliminating Other Sources of Discomfort_

When subtle or overt cues are assessed in the PVC, the nurse must decide that the
cue is a sign of pain or the cue may be a result of some other source of discomfort.
Current participants eliminated other sources of discomfort as if working down a list of
possibilities. As each source of discomfort was eliminated, pain became more evident as
the reason for the presence of the cue. These other sources of discomfort included soiled
diaper, hunger, need to be held, need to pacify, and sleepiness. Current participants did
not go through this elimination process with any other group of patients except those that
were unable to verbalize their experience of pain. The older child is able to differentiate
between other sources of discomfort and is able to verbalize the need to eliminate these
sources. For example, the older child will ask for something to eat or will ask to go to the
bathroom instead of just crying as if in pain. The preverbal child is unable to make the
differentiation and, therefore, the nurse must make interpretations of the situation to
decide whether pain or some other source is the culprit. No literature was found that
addressed this process in the preverbal population. When other sources of discomfort are
recognized, the resolution of that source, i.e., diaper change or feeding, usually eliminates
the cue. In this case, the nurse moves directly into the Letting Go phase. When all other
sources of discomfort are eliminated, the nurse then decides that pain must be present.
Even when the nurse knows that a PVC is in pain, these other sources of discomfort will be assessed and remedied some time during the managing process.

**Judging Pain**

This is the first step in managing a pain episode and consists of specifically assessing for the presence of pain cues. Current participants most frequently relied on body language, vital signs, characteristic of the cry, medical diagnosis, and the parent’s perception. Although participants gave similar responses to pain assessment, inconsistencies in clinical practice were evident. Inconsistencies in clinical practice found in the participants in this study were directly related to the inconsistent use of a formal pain assessment tool. Although a tool was available on all three pediatric units, the pediatric hospital was the only environment where the nurses used the tool on a consistent basis. Nurses on the other two units used a formal tool only sporadically. This finding is consistent with several other research studies on pain management (Salanterä, Lauri, Salmi, Aantaa, 1999; Salanterä, 1999; Higgins, Turley, Harr, & Turley, 1999; Simons & Roberson, 2002; Probst, Lyons, Leonard, & Esposito, 2005).

One reason for this inconsistency may result from the inappropriateness of the tool for preverbal children. Some of the nurses were not even aware that the tool was not valid and reliable for patients under 3 years of age. Nurses may have been frustrated as a result of this inadequacy; however, negative comments from every participant who worked in the mid-sized pediatric unit raised the question of whether there is significant value placed on the use of a formal, standardized tool by nurses. Nurses, working in the mid-sized pediatric unit, viewed the tool as a waste of time and a “bunch of bunk”.

Interviews conducted with these nurses did not delve into why more appropriate tools had
not been obtained or if the nurses understood the importance of reasons for standardized tools being used.

If administration of this hospital were committed to effective pain management, nurses would have the means and support to manage pain. Such support would include reliable and valid pain assessment tools for preverbal children. The hospital culture (discussed later) is a factor in the use of proper standardized pain assessment tools. The more patient-oriented, and less task-oriented a unit is, the more likely systematic and adequate pain assessment will take place (Abu-Saad & Hamers, 1997 Pederson & Bjerke, 1999).

Proper assessment must occur in order to manage pain. Assessment and reassessment are central to the discipline of nursing and are used in order to detect the presence of pain and to determine the effectiveness of pharmacological and non-pharmacological interventions. Assessment is also important in identifying the presence of side effects that may warrant a change in the intervention used. In addition to proper pain assessment, developmental and cultural background assessments of children should also be performed to assist the pediatric nurse in selecting the most effective intervention or tactic for a particular patient (Huth & Moore, 1998). Assessment includes obtaining a past pain history, current pain history, developmental level, coping strategies used in previous pain episodes and cultural background. Although nurses in this study did obtain a past pain history and coping strategies used during these episodes, developmental level and cultural background were addressed less often, if at all. The omission of such data from initial assessments may be due to the lack of formal developmental and cultural assessment tools utilized during the admission process. Administrators, nurse managers,
and staff nurses should be educated regarding appropriate developmental, pain and cultural assessment tools and the importance of using these tools consistently. Although children should be reassessed for pain every hour until pain is controlled, developmental and cultural assessments do not have to be repeated during the hospital stay (Huth & Moore, 1998).

**Comforting and Medicating**

Comforting and Medicating are the nonpharmacological and pharmacological interventions used in a pain episode. The pediatric nurse usually uses a combination of both when dealing with preverbal children in hopes of optimizing the effects of one with the other. Comforting is carried out first unless the nurse is certain of the presence of pain and/or the pain appears to be severe. The nurse may give pain medications, but then also use comforting measures until the pain medication has had time to work.

The study participants who worked in the moderate-sized pediatric unit gave more non-narcotic medications at the onset of pain as opposed to those nurses working in the pediatric hospital, who gave narcotics more frequently. These findings are consistent with studies showing that very young children were less likely to have pain medication ordered and/or pain medications given (Burokas, 1985; Higgins, Turley, Harr, & Turley, 1999; Abu-Saad & Hamers, 1997; Probst, Lyons, Leonard, & Esposito, 2005), while other results found no relationship between age or gender and the amount of pain medication given (Salanterä, 1999).

Participants felt that caring for preverbal children in pain was much more difficult, and that it confronted them with greater amounts of uncertainty than did caring for older children. These results were not consistent with findings showing that nurses
assessed and managed pain in infants better than other age groups (Helgadóttir, 2000; Coffman, Alvarez, Pyngolil, Petit, Hall, & Smyth, 1997).

Although Comforting measures are instituted by most pediatric nurses, Medicating the patient has been the focus of most research topics. If medicating the preverbal child is a vital tactic that is used in the pain management process, those factors that affect the nurse’s ability to carry out this tactic appropriately becomes just as important.

Current participants remarked that the greatest obstacle to effective pain management was the physician. The physician became the obstacle when inappropriate or no pain medication was ordered for the PVC. For the participants who work in the moderate-sized pediatric unit, the solution to this obstacle was to Play the Game.

Playing the Game

Playing the nurse-physician game was very evident among current participants who worked in the moderate-sized pediatric unit. Participants felt that they had to manipulate the physician in order to get what they needed for the patient. Some participants even made reference to nurses using their femininity to influence physicians.

The game between nurses and physicians has been played probably since both professions developed centuries ago and documentation of this game has been found since the 1960s. Surprisingly, a lot of the literature is written by physicians. Stein (1967) described the nurse-physician game as a social interaction that developed out of the differences in education between physicians and nurses. Physicians were educated to avoid mistakes at all costs and inadvertently adopted an omniscient attitude in order to cope with the high demands of patient care. Nurses, on the other hand, were educated to
respect physicians' higher level of knowledge and to become physicians' handmaidens instead of partners. Traditional rigorous nursing school frameworks also fostered a fear of independent action on the part of the nurse. These educational approaches became the foundation for the nurse-physician game.

The object of the game is for the nurse to be knowledgeable, assertive, and able to make significant recommendations while appearing passive. The nurse must also know how to make those recommendations seem as if they were initiated by the physician. The rule of the game is that open disagreement must be avoided at all costs. The impetus for continued playing of the game comes from the rewards of being successful in the game. The successful physician-player is treated well by the nurses, making his job easier. The successful nurse-player finds herself with greater respect from the physician, thus, increasing her self-esteem and professional satisfaction. There are also penalties for the unsuccessful players. These penalties include lack of respect, open dislike, and deteriorating work conditions. Gender is also an issue in the game, since most physicians in the 1960s were male and most nurses were female; therefore, sexual roles reinforce male dominance and female passivity. Similar perspectives of the nurse-physician game are documented into the 1990s (Macadon & Gibbons, 1985; Sweet & Norman, 1995).

Clinical competence is the basis for collaborative nurse-physician relationships. Although years are dedicated to becoming clinically competent, interprofessional and intraprofessional relationships are developed using an on-the-job trial-and-error approach.

This relationship development is consistent with the findings of the current study, as inexperienced nurses tended to be much more uncomfortable with making requests to
physicians, whether in person or by telephone. These findings are also consistent with van Niekerk and Martin's (2003) results that nurses with less than ten years of experience were significantly more likely to have difficulty due to insufficient physician cooperation with their suggestions than nurses with 21 years or more experience. Although improvements have occurred in nurse-physician relationships, the game continues to be played today (Sweet & Norman, 1995; van Niekerk & Martin, 2003; Kramer & Schmalenberg, 2003).

In view of the finding in this study of clear differences in Playing the Game between participants who were employed in the pediatric hospital and those who were employed in the moderate-sized hospital, one might conclude that the hospital culture is mostly responsible for the differences.

Kramer and Schmalenberg (2003) found that one-fourth to one-third of nurses working in four Magnet hospitals described their relationships with physicians as neutral or negative. This finding is not consistent with the findings of the current study. Kramer and Schmalenberg (2003) did, however, conclude that collegial or collaborative relationships were a result, not of the hospital as a whole, but of the type of unit where the nurse worked. Emergency departments and outpatient units had higher accounts of collaborative and collegial relationships than intensive care units and medical/surgery floors. This finding may be due to the amount of time that nurses and physicians spend together. Smith (2004) suggested that increasing exposure between nurses and physicians away from the bedside may enhance their relationships. The increased amount of time spent together at the bedside of patients in Emergency Departments may inadvertently have similar effects.
However, Playing the Game is still evident in practice settings today. Smith (2004) suggests moving toward a safety culture where hierarchy does not exist and individuals are expected to speak up. This type of culture fosters positive nurse-physician relationships that benefit nurses, physicians, hospitals, and patients. It is likely that healthy nurse-physician relationships promote nurse retention, decrease morbidity and mortality, and promote higher quality of care resulting in better patient outcomes.

*Letting Go*

Letting Go is the conclusion to managing a painful episode. Letting Go includes the positive as well as the negative resolution of pain. When a nurse is able to relieve the PVC’s pain, positive resolution occurs. Positive resolution brings a sense of reward and accomplishment for the nurse. The nurse feels that she/he has done her/his job and experiences a heightened sense of satisfaction. Negative resolution, however, is an inability to relieve the PVC’s pain. Negative resolution brings about frustration and a sense of failure for the nurse who has not been able to relieve the PVC’s pain. Pain relief does not necessarily have to be complete, but to achieve a level that is acceptable for the nurse. This level is affected by the nurse’s definition of pain management and by the nature of the PVC’s medical diagnosis. If previous experience has shown that pain cannot be totally relieved, the nurse is better able to settle for less than complete pain relief. Fortunately, negative resolution occurs much less frequently than positive resolution. Little, if anything, is known about the emotional impact that positive or negative resolution of pain has on the nurse.

McInerney, Goodenough, Jastrzab, and Kerr (2003) found that nurses were more likely to blame suboptimal pain management for children on factors other than
themselves. Nurses were most likely to blame medical staff, but factors such as patient behaviors that were confusing and side effects of pain medication were also to blame. These results concurred with findings of the present study, in which nurses also blamed the physicians most often for the inability to control pain. Nurses were sometimes not able to obtain orders for appropriate medications and, therefore, could not alleviate or eliminate the PVC's pain. Less frequently, a PVC may have a medical diagnosis or have had a procedure done such that complete pain relief is not expected. In this case, the nurse may still feel frustrated, but knows that there is no person to blame. In the current study, nurses who worked in the pediatric hospital experienced negative resolution only as a result of painful procedures performed on PVCs, whereas the nurses in the moderate-sized pediatric unit experienced more physician-related negative resolutions. Hospital culture, therefore, plays an indirect role in the number of negative resolutions that occur to nurses, as well as the reasons for those negative resolutions. If a nurse consistently experiences negative resolution of pain, then job satisfaction may decline and the desire to leave that position may increase (Schaefer & Moos, 1996). Regardless of the reason, nurses in this study felt that they had done everything in their power to manage the PVC's pain, but the end result was that the negative resolution was out of their control.

Knowing the Territory

Knowing the Territory is having the knowledge of the physical environment, as well as the social and professional knowledge, needed to work efficiently in a nursing setting. Knowing the Territory occurs on a continuum that begins with a new graduate nurse or a nurse new to a particular setting or unit. For the physical environment, the
nurse is oriented to the unit and policies and procedures of the hospital. After a time of working on that unit, the nurse moves from relying on others to direct him or her, to the point where she or he becomes very comfortable on the unit and does not have to rely on others to get around. This same type of process also occurs with social knowledge; however, the process is not addressed specifically. The nurses are introduced to staff and physicians as they come in contact with them. The nurses must learn on their own about the personalities of those individuals, and the best plan for making each individual a part of the working environment. This process includes informal chains of command and how to deal with physicians.

Professional knowledge is gained through didactic programs and through experience. While knowledge of the physical and social environments is important, professional knowledge is of greater importance in being able to efficiently work in a setting and to subsequently manage pain efficiently. Although professional knowledge is obtained through nursing schools and continuing education programs, the application of this knowledge to clinical experiences is more influential on effective nursing care. While most studies report a positive correlation between knowledge and/or experience and the ability to assess pain (Simons & Roberson, 2002; Abu-Saad & Hamers, 1997; Pederson & Bjerke, 1999; Merkel & Malviya, 2000), Hamers and associates (1997) found that there were no differences in pain assessments between novices, intermediates, and experts. However, experts were more confident in decision-making and were more inclined to administer analgesics than those nurses who were less experienced. Although the current study did not attempt to measure the level of knowledge regarding pain and
pain management, responses from more experienced nurses would lend credence to the existence of a positive correlation between relevant experience and knowledge.

Abu-Saad and Hamers (1997) found that pediatric nurses tend to rely on past experiences to make present pain assessment/management decisions and that they also are influenced by colleagues in these same types of decisions (Pederson & Berjke, 1999). The current study shows that relevant nursing experience is more important in maneuvering through the system, confronting physicians, and managing pain effectively than traditional chronological years of nursing experience. The more times a nurse deals with a PVC in pain, the more effective the nurse will be at engaging appropriate tactics for pain management. The more times a nurse deals with a certain medical diagnosis, the more effective the nurse becomes at anticipating the needs of the patient. The more times a nurse deals with a particularly difficult physician, the more savvy the nurse becomes at getting what is needed from that physician.

These findings concur with those of Patricia Benner whose phenomenological study showed the progression of a nurse from novice to expert: “Expertise develops when the clinician tests and refines propositions, hypotheses, and principle-based expectations in actual practice situations” (2001, p. 3). The nurse, therefore, must have experiences on a consistent basis in order for this process of testing and refinement to occur. Through relevant experience, the nurse develops global sets about patients and is able to anticipate certain actions for certain situations. The presence of a global set allows the nurse to assess and intervene more rapidly in a clinical situation. The nurse who deals with pain in preverbal children on a regular basis will operate more efficiently than the nurse who has little or no experience with preverbal children in pain.
In the current study, the nurse who has relevant pain experience was able to move quickly to those actions that were most effective for the child, to recognize the need to call a physician, and to know what to ask for when the physician was called. Nurses with less relevant experience felt less comfortable making pain management decisions. Benner (2001) and Rew (2000) also found that expert nurses had difficulty in explaining step-by-step what they actually did in a particular situation, almost working subconsciously. These findings concur with those in the present study.

Participants in the current study had great difficulty in delineating their exact steps in assessing and managing pain. One participant pointed out the difficulty of putting into words what she does on a daily basis. Another participant spoke of nursing care becoming more intuitive as an experienced nurse.

Mayhew (1999) referred to the process of combining large numbers of patterns into meaningful groups or chunks. Chunking eliminates the conscious recollection of specific patterns but allows the nurse to handle a greater volume of data needed for more effective nursing care. Herbig, Büshing, and Ewert (2001) defined tacit knowledge as similar to work experience; as bound to a person; as situation- or context-oriented; acquired and strengthened by concrete and sensual experiences; and as not consciously perceived as guiding ones' actions. These authors' findings showed that tacit knowledge was more significant in the successful accomplishment of a critical situation than was explicit knowledge. Benner (2001) referred to this knowledge as “intuitive grasps” (p. 32) and as the unconscious workings of a prepared mind. Rolfe (1997) discussed the importance of tacit knowledge in the development of expertise. He also suggested that there is a level beyond expertise that is characterized by mindful practice and informal
theory building. This level beyond expertise is developed through reflection on a situation as the events are occurring instead of waiting to reflect on the situation after the event has taken place. This reflection-in-action becomes a form of problem-solving or on-the-spot experimenting.

The nurses interviewed for this study appeared to participate in a similar process when faced with a difficult pain episode, or, at least a pain episode that fell outside of what was anticipated. During these episodes, the nurse may make adjustments in interpretations or in interventions to suit the current patient situation. Routine pain episodes, or those pain episodes that followed the course of what was anticipated, were approached with more tacit knowledge than with a conscious process.

Knowing the patient is also a part of knowing the territory. Knowing the patient is considered a part of an expert nurse’s character (Benner, 2001; Manley & Garbett, 2000) and calls for commitment and involvement in nurse-patient relationships. Knowing the patient also helps the nurse to interpret concerns, anticipate patients’ needs, and even adds to job satisfaction (Luker, Austin, Caress, & Hallett, 2000). This involvement, rather than detachment between the nurse and the patient, allows for early recognition of subtle changes in the patient’s behavior or appearance (Benner, 2001).

Personal Attributes of the Registered Nurse

Personal attributes of the nurse is a broad concept that incorporates those characteristics that are personal and not included under other concepts. This may include age, personality, temperament, beliefs, and ethics of the pediatric nurses. Study participants spoke of lazy or judgmental personalities that explained a lack of
assertiveness in pain management. Some participants had great difficulty in specifying personal attributes that influenced pain management behaviors and summed this up by saying “that’s just the way they are.”

Benner (2001) stated that each nurse brings her/his own history, intellectual commitments, and readiness to learn, to every clinical situation. This personal knowledge, in turn, influences the clinical decision-making process. Personal experiences of nurses are conceptualized as their direct and indirect experiences from birth to the present (Greipp, 1992). Personal experiences include personal pain experiences and may also affect a nurse’s pain management behaviors.

Holm, Cohen, Dudas, Medema, and Allen (1989) found that intensity of the nurses’ personal pain experiences significantly predicted perceptions of patient physical suffering. Conversely, Wessman and McDonald (1999) found a negative relationship between nurses’ personal pain experience and their pain management knowledge; however, personal pain experience was associated with greater learning of the pain management knowledge. Clarke, French, Bilodeau, Capasso, Edwards, and Empoliti (1996) found no correlation between the intensity of personal pain experienced by nurses and their scores on a knowledge and attitudes survey.

Participants in the current study felt that having personal pain experiences did influence their pain management behaviors; however, some felt that they were more sympathetic to patients in pain while others felt that nurses who had experienced pain were less sympathetic. One participant in particular spoke of having a close family member who had chronic pain issues but had abused prescription drugs as a result. This
participant remarked that this personal experience of pain made her less tolerant of adults in pain, but did not affect her pain management in children, especially preverbal children.

The contradictions in the literature may be a result of the differences in coping styles of each individual nurse. Certainly, there are personal factors that are influential in the pain management process that have yet to be studied, or have just been superficially described. Beyond personal attributes, there are other factors that are external to the nurse, factors that impact the process of engaging in tactics of pain management.

Workload and Culture of the Hospital

In this study, the workload and culture of the hospital were described as separate external factors that influenced the process of Engaging in Pain Management Tactics. Workload, however, has been defined as part of the work culture (Moos, 2002), rather than as separate from the environment.

The participants in the current study can be divided into three groups for the purposes of discussing workload and hospital culture issues: 1) those participants who worked in a pediatric facility, 2) those participants who worked in a small pediatric unit in a small acute care hospital, and 3) those participants who worked in a medium-sized pediatric unit in a moderate-sized acute care hospital. The participants working in the pediatric hospital experienced more job satisfaction, more autonomy, and less nurse-physician conflict. Administration was described as being supportive and proactive in pain management outcomes. Nurses were able to carry out their pain management responsibilities with few, if any, obstacles. Goals and expectations were clearly delineated from administration down to the bedside nurse and included the physicians
caring for the patients in that facility. The culture of this hospital closely resembled that of a magnet hospital.

Magnet hospitals have many qualities of successful business companies, such as competent managers, decentralized decision making, investment in workers and recognition of their contributions, and scheduling flexibility. Significantly higher autonomy, greater nurse control over care resources, and better relationships between physicians and nurses are also characteristic of magnet hospitals (Aiken, Clarke, Sloane, & Sochalski, 2001). The resemblance between the hospital culture of the first group of participants and that of a magnet hospital is not surprising, because the hospital is nearing completion of the application process for magnet status. Magnet hospitals also have more successful nursing recruitment and retention than their non-magnet counterparts, resulting in nurses with more experience and loyalty to the hospital and subsequent lower nurse:patient ratios. The small pediatric hospital culture also shared qualities similar to those of a magnet hospital.

The participants working in the small pediatric unit did not experience the extent of nurse-physician problems and staffing shortages that the third group of participants experienced. Participants working in the third hospital culture seemed less satisfied with their jobs and more frustrated in their pain management efforts than the other two groups. Nurse-physician conflicts were also common among this third group.

Although the current study did not explore the extent of job satisfaction during the interviews, job satisfaction is an indirect measurement of patient outcomes (Aiken et al., 2001). When nurses experience decreased job satisfaction, the ability to attract and retain quality nurses is limited and results in problematic staffing issues. Interestingly, the same
organizational deficiencies that result in job dissatisfaction also cause patient dissatisfaction and poorer patient outcomes. Therefore, the culture of the hospital that results in greater job satisfaction may predict more positive patient outcomes than the culture that results in greater job dissatisfaction.

Schaefer and Moos (1996) found that job morale and functioning were affected most negatively by workload and scheduling stressors in long-term care staff. Similar results were found in studies of acute care staff members (Norbeck, 1985; Tyler, Carroll, & Cunningham, 1991). These findings are consistent with those of the current study, at least for those participants who alluded to job dissatisfaction.

Nurses who participated in the current study described increased workload as a result of higher patient acuity levels and staffing shortages. Aiken et al. (2001) surveyed 43,329 nurses from the United States, Canada, England, Scotland, and Germany regarding their perceptions of their work environment, job satisfaction, career plans, presence of burnout, and quality of nursing care delivered. Staffing shortages were identified as a significant problem in rendering adequate care to patients for 60% to 70% of those surveyed. The majority of the North American nurses reported an increase in nurse-to-patient ratios, along with increased patient acuity levels, over the year preceding the survey.

In contrast, in the current study participants working in the pediatric hospital reported staffing to be optimal due to extremely low turnover rates. Even if nurses wanted positions in the more desirable culture of a magnet hospital, opportunities were scarce for those seeking positions there. Nurse-to-patient ratios, on a bad day, were 1:3, while ratios in the other two settings, on a good day, were 1:5 or greater. Time constraints
resulting from increased workload have also been recognized as barriers to effective pain management and higher nurse-to-patient management (Ely, 2001; Simons & Roberson, 2002; Abu-Saad & Hamers, 1997).

Although increased patient acuity increases workload, patient care stressors do not always have the same negative effects on nurses as work stressors. Schaeffer & Moos (1996) found that taking care of patients with complicated illnesses actually increased job satisfaction. Although workload and job satisfaction are major concerns for nursing, aspects of the culture that specifically target pain management behaviors are also deemed important.

Pain management guidelines established by JCAHO, American Pain Society and other professional organizations are not only mandated but are pivotal in the consistent and appropriate management of pain episodes. However, there seems to be a lack of dissemination of these guidelines at the unit level and a lack of understanding of these guidelines by the staff nurses who are directly responsible for implementing them. This is not due to the lack of accessibility of the guidelines but rather a lack of acceptance and/or commitment of administrators in health care facilities to the implementation of those guidelines.

The culture of the hospital tends to “maintain or accentuate individual characteristics that are congruent with their dominant aspects” (Moos, 2002, p. 71). Therefore, when a hospital embraces pain management guidelines and fosters a culture wherein those guidelines are implemented and subsequent positive patient outcomes are expected, employees in that environment will develop attitudes akin to their
supervisors/administrators. Hospital cultures that are unclear of their expectations will influence staff to have the same attitude.

In this study, the overall responses of those participants who worked in the pediatric hospital were much more positive and proactive than responses from those that worked in different hospital cultures. High standards for pain management were not only expected in the pediatric hospital, but the means and the support to achieve those expectations were consistently made available to staff. Nurses and physicians alike were held to the same pain management guidelines, resulting in a more cohesive work environment. Cohesive, supportive work relationships and clear expectations increase nurses' job satisfaction and performance; therefore, the lack or absence of these same environmental factors result in lesser job satisfaction and poorer job performance (Schaefer & Moos, 1993). The conflicts that occurred between physicians and nurses as a result of Playing the Game are an indication of less cohesive relationships and may, over time, erode nurses' emotional and physical well-being, resulting in adverse physical symptoms and even depression (Moos, 2002).

Hospital cultures that promote job satisfaction for nurses by providing more autonomy, proactive pain management strategies, and an environment that fosters more cohesive peer and physician work relationships can result in higher retention rates for nurses. The ability to retain more satisfied nurses not only impacts the quality of delivered care resulting in more positive patient outcomes but also saves a significant amount of money for the hospital. Aiken et al. (2001) calculated that a 500-bed hospital could save $800,000 if RN turnover rates were decreased by only 3%. These savings should motivate hospitals to improve working conditions in order to attract quality nurses.
as well as improve patient outcomes. A comparison of the cultures in the hospitals that the participants of this study worked at is shown in Table 2.

**Table 2**  
*Hospital Cultures*

<table>
<thead>
<tr>
<th></th>
<th>Small inpatient pediatric unit</th>
<th>Moderate-sized inpatient pediatric unit/pediatric intensive care unit</th>
<th>Pediatric hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Pediatric Beds</td>
<td>15</td>
<td>30</td>
<td>201</td>
</tr>
<tr>
<td>Nurse:Patient ratio (as described by participants)</td>
<td>1:5</td>
<td>understaffed</td>
<td>1:3</td>
</tr>
<tr>
<td>Turnover rate (as described by participants)</td>
<td>Low</td>
<td>Moderate</td>
<td>Low</td>
</tr>
<tr>
<td>Occurrence of Playing the Game (as described by participants)</td>
<td>Only occurs with new nurses or with non-pediatric surgeons who are less comfortable with pediatric pain management</td>
<td>Occurs frequently with some pediatricians</td>
<td>Occurs very infrequently</td>
</tr>
<tr>
<td>Use of Pain Assessment Tool (as described by participants)</td>
<td>Used inconsistently but not appropriate for preverbal children</td>
<td>Not seen as valuable; tool is filled out in chart for the sake of completing paperwork; tool that is filled out is inappropriate for preverbal children</td>
<td>Used consistently</td>
</tr>
<tr>
<td>Attitude toward pain management (as described by participants)</td>
<td>Some obstacles exist for optimal pain management</td>
<td>Obstacles exist for optimal pain management</td>
<td>Proactive; hospital is committed to pain-free environment</td>
</tr>
</tbody>
</table>
Summary

The process that a pediatric nurse goes through in managing pain in a PVC involves an ongoing assessment of the child in order to detect changes in behavior that may signal the presence of pain. When this change takes place, the assessment becomes more pain specific but continues throughout the managing process. The nurse engages in different tactics of pain management in order to positively resolve, or completely relieve or to alleviate the patient’s pain to a manageable level. These tactics are found in the first four of the five phases in the managing process: Eliminating Other Sources of Discomfort, Judging Pain, Comforting, Medicating, and Letting Go. Most of the findings of this study are consistent with studies found in the literature. Inconsistencies are focused around the current participants’ level of trust in the mothers’ of the preverbal children, and the prevalence of, and settings for, Playing the Game between physicians and nurses. Although the nurse being a parent is in the literature as an influencing factor in pain management, the findings of such research is contradictory. The contradiction may be due to the researchers focusing on the nurse’s parental status and effects on pain interventions in place of the increased sensitivity to pain cues revealed in the current study. The process of Letting Go, or similar concepts were not found in the literature.

Although the aim of this study was not to solve the problem of ineffective pain management in preverbal children, concerns found in the literature are reiterated in the findings of this study. For this researcher, these concerns are two-fold. First of all, some nurses do not value the use of standardized pain assessment tools. The reason behind this may be that the culture of the hospital is not such that the use of standardized tools is encouraged. This lack of value may also be related to the lack of emphasis that is placed
on pain in some nursing programs. A third reason may be that nurses think of pain and pain management as a specialty area instead of the everyday occurrence that it is (Simons & Roberson, 2002). Secondly, the culture of the hospital is more influential on the pain management process than has previously been acknowledged. Attitudes of administrators and middle management personnel play a significant role in the bedside nurses’ ability to effectively manage pain. Workload is increased as staffing shortages persist or even worsen. Staffing shortages are, at least to some degree, a reflection of the type of hospital culture that is evident in a healthcare facility. A hospital culture that is motivating, supportive, and clear on expectations will most likely be the same culture that enforces and role-models adherence to pain management guidelines set forth by JCAHO, the American Pain Society, and the American Academy of Pediatrics. This hospital culture will retain quality nurses who are able to effectively manage pain, and will value that process as well. Perhaps the opposite outcome will occur for hospital cultures that lack these qualities.

Limitations

This study, as in most qualitative studies, the goal for generalizability is not intended. Grounded theories are works in progress, developing over time, and are meant to be expanded upon. Grounded theories are meant to be tested by nurses in practice, and corrected and refined as needed. Due to the nature of grounded theory, the small sample size is not considered to be a limitation. A limitation may exist in the data collection method used in this study. Since interviews were the primary method of collecting data, participants who were more eloquent and outgoing may have been more likely to give
more detail as opposed to the more reticent individual. Although all participants seemed to share openly during the interviews, some participants were more verbal than others.

Implications for Nursing Practice

Findings of this study have implications for both nursing practice and research. The study findings highlight the continued need for pain and pain management education so that nurses are equipped to effectively deal with preverbal children in pain. Nursing programs should be encouraged to strengthen the pain and pain management content in the curriculum and to emphasize the application of that content in the clinical setting. Obtaining a knowledge base and experiencing real clinical situations will give the new graduates greater confidence in their ability to recognize pain cues, select appropriate nonpharmacological and pharmacological interventions, and to interact appropriately with physicians when the need arises. Although playing the nurse-physician game may not be as prevalent as it once was, the phenomenon seems to cause enough problems for some nurses that it should be addressed. Future research should focus on methods to encourage more collaborative relationships between nurses and physicians. Smith (2004) suggests getting nurses and physicians together in formal and informal settings and building an alliance between the two professions. This could take place early on between residents and nursing students. Getting rid of dedicated physician parking and eating areas may also help to reduce the chasm.

Relying on the parents to assist in pain assessments can decrease the workload of the nurse while increasing the parental satisfaction of being involved in their children’s
care. Future research should focus on factors that encourage the development of this partnership and the benefits for both nurses and parents.

Little is known about the emotional and psychological effects of successful and unsuccessful pain management on the nurse. Nurses may experience job dissatisfaction, disillusionment, and even depression over the inability to manage pain effectively. Future research is needed in this area.

This study also highlights the finding that standardized pain assessment tools continue not to be used in clinical settings. The inclusion of standardized pain assessment tools in educational programs may help in this area; however, changes in educational programs do not always result in a change in clinical practice.

Nurses are responsible for the effective management of pain in preverbal children and should be able to accurately assess and select appropriate interventions for this purpose. Workload and the lack of pain assessment tool usage continue to be problematic for effective pain management. Change in knowledge is easy to remedy; however, a change in attitude is much more difficult to achieve. Findings from numerous studies have described nurses' attitudes regarding pain and pain management, but research has not focused on methods to improve those attitudes. A change in attitude may be the bridge that links increased knowledge with more effective pain management behaviors.
REFERENCES


Pain terms: A list with definitions and notes on usage. Recommended by the IASP Subcommittee on Taxonomy. (1979). *Pain, 6*, 249-252.


APPENDIX A

Informed Consent Document

A GROUNDED THEORY STUDY OF PAIN MANAGEMENT BEHAVIORS IN NURSES WHO CARE FOR PREVERBAL CHILDREN

Sheri Reynolds Noviello, RN MSN, Principal Investigator

Invitation to Participate

I have been invited to take part in a research study to help health care professionals find out about what factors affect nurses’ pain management decisions.

Study Design

This study is designed to ask questions about my experiences and impressions regarding pain and pain management with preverbal children (0 to 3 years of age). If I consent to be in the study, I will participate in a one-time interview about my experiences with preverbal patients who have been in pain. I will be one of approximately 20 professionals in the study. The interview may take from 30 to 90 minutes. I will be asked open-ended questions about my perceptions of factors that affect nurses’ decisions regarding pain management when caring for preverbal children. I will be asked to give examples of experiences I have had with client’s pain management and talk about the meanings of these experiences. I will be asked to refrain from the use of clients’ names in the interview. I will talk about ways in which I have adapted my practice because of my experiences and what I have learned about pain management. Interviews will be audio taped and transcribed. My name will appear on no forms other than this consent form, but I will be asked demographic questions such as my age and years of experience. All information which might lead to my identification will be eliminated from the interviews during transcription and the tapes will be erased following analysis to assure confidentiality.

In talking with the researcher, I will be asked to respond to such questions as:

1. What do you think are some of the factors that guide a nurse’s pain management decisions?
2. Tell me about some examples of pain management decisions in your experience that have influenced your thinking about pain management in your patients.
Subject Payment

I will not receive any payment nor will I be required to pay any money for my participation in this research study.

Risks

I am aware that there are no known risks to my participation in the study. I know that I am committing my time and the recollection of my experiences. As I answer questions I may have uncomfortable thoughts and feelings or anxiety. If I become uncomfortable with the subject matter, I can change the subject or decide not to answer the question which is bothering me.

Benefits

Although it is possible that society may gain from the results of this study, I may not personally benefit. However, a possible benefit from participation in the study is the satisfaction of knowing that the information that comes from this study can help other health care providers to understand what factors may affect their pain management decisions and subsequently provide more effective pain management.

Confidentiality

Only the investigator and her faculty advisor from Medical College of Georgia will have access to confidential data which would identify me. I will not be identified in any reports or publications resulting from the study. The Medical College of Georgia assumes no obligation to pay any money or provide free medical care in case this project results in any harm to you.

Sheri Noviello, who can be reached at [email] will answer any further questions I may have at any time concerning the study. If I have any questions or concerns about the "rights of research subjects", I may contact the Chairman of the Human Assurance Committee, Dr. George Schuster, at (706)721-2991.

Voluntary Participation

My participation in this study is voluntary. I may revoke my consent and withdraw from the study now or at any time in the future without penalty. I will be informed if the study provides any new information that might affect my decision to participate, so that I may decide whether to continue in the study.
The risks and benefits to me if I participate in this study have been explained. I have had the chance to ask questions and these questions have been answered. I voluntarily agree to participate in this study.

Participant’s Name (print)

Participant’s Signature Date

Witness’ Name (print)

Witness’ Signature Date
to the informed consent process and the signature of the subject and/or subject’s parent and/or legal guardian

INVESTIGATOR STATEMENT

I acknowledge that I have discussed the above study with this participant and answered all of his/her questions. They have voluntarily agreed to participate. I have documented this action in the subject’s medical record or source document. A copy of this signed document will be placed in the subject’s medical record or source document. A copy of this document will be given to the subject or the subject’s legally authorized representative.

Printed name of investigator obtaining consent

Signature of investigator obtaining consent Date
Sheri Noviello, MSN, BSN
Medical College of Georgia
1120 15th Street Augusta,
GA. 30912

RE: A Grounded Theory Study of Pain Management Behaviors of Nurses Who Care for Preverbal Children

HAC File Number: 03-03-246
Approval Date: 03/28/2003
Expiration Date: 03/27/2004

Dear Dr. Noviello:

The referenced protocol was examined and found to be exempt from review by the full Human Assurance Committee (HAC) in accordance with the Department of Health and Human Services (DHHS) policy and the institutional assurance on file with the DHHS. If the study will continue beyond the initial approval term, review by the HAC Chairman is required, with a progress report constituting an important part of the review. The Committee will send a HAC Form 107 form [Clinical Study Status Report] for completion. Failure to return this report by its due date will result in an automatic termination of this study. Reinstatement will only be granted following resubmission of the study to the HAC.

If Veterans Affairs (VA) facilities will be involved in this study, you must also obtain a letter of approval from the VA Research Development Committee prior to involvement of VA facilities.

Sincerely,

George S. Schuster, D.D.S., Ph.D.
Chairman, Human Assurance Committee
CJ-2103

C: HAC file, chron