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Anesthesia Guide to Help Increase Parental Knowledge and Reduce Anxiety for Parents Bringing Children to the Operating Room

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ANESTHESIA GUIDE TO HELP INCREASE PARENTAL KNOWLEDGE AND REDUCE ANXIETY FOR PARENTS BRINGING CHILDREN TO THE OPERATING ROOM

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ABSTRACT

This study examined parents' anxiety levels of bringing their children to the operating room (OR) and also explored the choices they have available to them given the facility they are using for services. The extensive literature review explored these issues, resulting in the creation of a teaching brochure designed to give information and options to parents as they bring their child to the operating room. The brochure design and development is thoroughly discussed in the study. The literature review also explored suggested methods to decrease anxiety, including increasing parental knowledge related to the anesthesia process. The anesthesia providers' responsibilities and thoughts on having parents present at induction of their child is also discussed, including thoughts about informing parents what to expect and providing possible tools to help alleviate their fears and answer questions they may have formulated. The interaction between the anesthesia providers and the parents during the anesthesia process can be very positive or leave the parents with more anxiety when their child disappears behind closed doors. The educational brochure developed assists to decrease parent's anxiety and make the OR experience less frightening to the child and the parents. This study concludes with recommendations for nursing practice, education, and research and policy development.

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PHASE I

INTRODUCTION

Research has shown that the child's anxiety increases with exposure to strange environments, new faces, and potentially painful procedures (La Rosa Nash & Murphy, 1997) Parental presence during induction has been controversial for many years. The controversy is particularly based on the study from Pond and Aiken, 1996. In that state, the author notes:

> Parental presence appears to appease some children during the induction of anesthesia for a brief period of time; there is no proof of its long-term effectiveness. Parents take their child to the hospital everyday for minor injuries, illnesses and surgical procedures. Parents have increased anxiety about their child being taken from them and lead into a place with which they are unfamiliar and off limits to them. Throughout this project the different methods of dealing with this issue will be examined. The different methods range from pharmacological means only, parental presence with pharmacological means, and parental presence alone with education (Pond & Aiken, 1996, p.1212).

In my own experience of taking my infant to the operating room and observing other mothers' experiences, this topic is not well covered in the literature and not well addressed from the hospital perspective. Further education and implementation of what to expect is warranted in the majority of hospitals around the country. Preoperative education would provide helpful information to answer questions and examine fears that

the parents may have about the unknown environment to which they are leading their child.

The controversy of having parents present during induction of anesthesia has been ongoing for many decades. The controversy is that many anesthesia providers feel that the presence of parents in the operating room only causes more anxiety for the child and in return makes the experience unpleasant for all involved. The parents, however, feel a sense of need to be with their child and to help with the experience in any way possible. Many on both sides of the issue fail to realize that the more education and familiarity with the process, the better the outcomes. This issue of parental presence during induction was explored, including the stressors as they relate to the child, the parents' knowledge base, and the anesthesia provider's role as it relates to the parents and the child.

Purpose of the Project

The purpose of this project is to development an educational brochure that could be given to parents prior to the day of surgery. The brochure will inform the parents of the events of the surgical day and what to expect if they choose to be present during induction of their child.

The brochure will also have a place for feed back from the parents for further refining and editing of the brochure for future use. Providing feedback gives parents a means to relate their feelings and thoughts back to the anesthesia team which will help enhance future patient experiences.

Conceptual/Theoretical Framework

The theoretical framework that was chosen for this independent project was designed by Imogene King. Imogene King developed a theory with three basic systems that interact constantly with the environment. The systems are a personal system, an interpersonal system, and a social system. The theory is based on the assumption that humans are open systems in constant interaction with the environmental features around them. The King theory relates to this independent project in all three systems and will be explored throughout this independent study. According to Ruby (1995) the systems are :

Personal system: this system consists solely of the individual and includes perception, self, growth, and development of body image, space and time. Perception is the primary feature within this system that influences behaviors and is highly subjective and unique to each person.

Relating the personal system to the parents' perception of an unfamiliar area and placing their child in an environment that they are also unfamiliar with as well. The personal system deals with the parents' perceptions of what will happen to their child and the issue of decreased knowledge may enhance the difficult perception that the parents conceive to be happening to their child. Increasing knowledge could be a key in defraying the preconceived perception that the parents may have formulated.

Interpersonal system: This system occurs as humans socialize, which includes interaction, communication, transaction, role, stress, and coping. The primary feature from this system is the interaction section which refers to the verbal and nonverbal communication and behavior of two interacting persons. It involves goal directed perception and communication and the interaction with the anesthesia provider and the

parent on the best course of action for the child undergoing surgery. The other feature in this system is the role category in which "the expected behaviors of a person in a specific position and to the rules that govern the position and affect interaction between two or more persons" (Ruby, 1995, p. 6).

Social Systems: Social system occurs when interpersonal systems come together to form a larger system. The social system that King cites is the inclusion of families, religious groups, schools, workplaces, and peer groups. King also proposes parameters of organization which includes human values, behavior patterns, needs, goals, and expectations. Interpreting this as a team approach for the parent, anesthesia provider and the entire surgical team would make up the social system that Imogene King envisioned.

A teaching brochure was developed using the above described theory which brought together the three basic systems of personal, interpersonal and social.

Research Questions

Three questions addressed in this project:

1. What are some mechanisms that would assist in decreasing the separation anxiety of parents taking their children to the OR?
2. How does parental presence at induction affect the child, parents and the anesthesia care team?
3. What type of preoperative educational tool would help prepare the parents and assist in decreasing their anxiety while making the OR experience less frightening for them and their child?

Definitions

The following definitions are used to explain some terminology within the project that may be specific to this project and not common among other independent projects.

1. Parental Presence at Induction (PPI). This term is used frequently in the project and relates to the parent being present in the operating room, at the time the child is put to sleep by the anesthesia care provider.
2. Separation Anxiety - a state of anxiety caused in somebody, especially a young child, by the thought or fact of being separated from his or her mother or primary caregiver (Rooney, 2001).
3. Induction: Is the means which the child is put to sleep with pharmacological means either by inhalation agents or intravenous agents that render the patient unconscious.
4. Preoperative education – Traditionally the time frame leading up to the time the patient enters the operating room. It can precede the day of surgery by days depending on the facility

Significance of Project

In reviewing the literature and through personal observation and experiences, the tool developed from this independent project will help formulate a new relationship with the anesthesia care provider and the parents of children coming to the operating room. This project will present a better understanding of the separation anxiety that parents and children go through during this time. It will also offer ways to increase the knowledge of the parents about the anesthesia experience and what to expect. Informing the parents of different pharmacological and interactive therapies that are available will be presented in the educational piece of the tool. Hopefully, through this educational brochure parents' anxiety will be significantly reduced.

Assumptions/Limitations

Assumptions underlying this project are:

1. Whether expressed or not, all parents experience a degree of anxiety related to their children coming to the operating room.
2. Parents want and need to accumulate information that will better prepare them for caring for their children.
3. Increased education helps eliminate the fear of the unknown and gives a chance for the parents to expand their knowledge.

Limitations of this project include:

1. The projected brochure may be more accepted in children's hospitals rather than the non-children's hospitals due to time and implementation process.
2. There will always be a population of people who are not receptive to the increase knowledge and the offering of help.

Review and Critique of Related Studies

Parental Presence

An extensive literature review was conducted to examine the research and the phenomenon of parental presence during induction (PPI). The literature review compared and contrasted arguments both for and against the presence of parents in the operating room at induction. The literature review also included other ways of interacting with children and their parents, such as video education and pharmacological means. The issue of parental presence at induction of pediatric anesthesia has been around for many years.

Pediatric patients who present to the operating room are at a higher risk for increased anxiety related to their developmental age and psychological development. "In 1953, Eckenoff suggested that perioperative events, particularly parental separation and a 'stormy induction,' led to psychological trauma in the post-operative period." (Henderson, Baines, & Overton, 1993, p. 324) This study assessed the attitudes of parents being present at the actual induction. One hundred and fifty four questionnaires were returned and analyzed with eighty seven percent of parents wanting to be present at induction. According to La Rosa, Nash & Murphy, (1997), Erikson's theory of personality development is the reasoning for this increased anxiety level. Erikson's theory states the first and most important attribute of a healthy personality is to develop a basic trust. Establishment of basic trust dominates the first year of life. Consistent loving care by a mothering figure is essential to the development of the basic trust. Mistrust will develop when trust-promoting experiences are deficient. Being taken to the operating room away from the mothering figure could be a mistrust situation, which the

infant feels anxiety. Trust allows the infant a feeling of physical comfort and security, which assists him or her in experiencing the unfamiliar. Erikson describes the infants' motivations as dependent on the satisfaction of basic human needs. The child develops a sense of trust when these needs are met by the caregiver.

Separation anxiety, occurring from 6-30 months of age, has been documented to be most intense in the pediatric period. Exposure to surgery at this young age presents these patients to a strange environment, new faces, and potentially painful procedures. The infant and toddler are ill equipped to deal with the anxiety that arises from this new and strange setting. Adding the separation anxiety of the toddler to the increased anxiety of the parents can lead to undo stress on all parties involved in the surgery.

A study preformed in the 1980's determined that effective preparation should include not only modeling but also child-life preparation, teaching of coping skills, and involvement of the parents. Another panel of experts in the 1990's, decided that "teaching coping skills and following with modeling and then a tour of the operating room was considered to be the most effective intervention" (Kain et al., 1998, p. 1249). In further studies after the 1980's, it has been well documented that interaction with the parents markedly decreases their anxiety levels. This parental interaction helps to make the experience of bringing their child to the operating room a more pleasant experience for all involved.

Blesch and Fisher (1996) examined reasons why the parental anxiety level increases at induction and the satisfaction with the care their child was given during induction by the anesthesia care provider. "Fear of potential harm to their children, feelings of helplessness in calming their children's fears, and lack of parental control are

concerns parents experience when their children undergo surgery" (Blesch & Fisher, 1996, p. 761) This study used the State-Trait Anxiety Inventory (STAI), blood pressure and pulses of the family members to help measure anxiety levels of the parents. At completion of the study, it was found that 65 percent of 75 parents rated their satisfaction with being present at induction as a 10 out of 10, when they had been adequately educated. Thirty one percent of the seventy five parents rated their satisfaction level a seven or nine out of ten. Overall the conclusions of this study found that initiating programs to increase parental presence in the induction and perioperative stage can be beneficial.

Thorough education of the parents has been cited to be a key part in decreasing the anxiety of parents and in turn their children. It would seem that the acknowledgement of parental stress at the child's induction would lend more research in the need for interventions to support parents and help alleviate fears and stress. Education ideally could begin in the physician's office as part of the pre-operative work-up. Ideas that could be implemented at the pediatrician's office could include a pamphlet or educational brochure for the parents to read through and formulate questions. This would enable the parents to begin the thinking process, which could initiate an environment of learning during the anesthesia interview in the hospital.

Other studies have looked at how much information the parents need to know and when to tell them. The amount of information and the timing of information was looked at in many studies with conclusions on either side of full information and guided need to know information. One study stated "Those who are invited to watch their child's induction must be told precisely what to expect" (Hannallah & Rosales, 1983, p.

289). Throughout the literature review, this has been a common theme. Increasing the knowledge of parents is the key, but the question of what and when to tell them has been debated. The study by Hannallah & Rosales in 1983 supporting presence of parents at induction (PPI) have concluded that parents need to know what will happen to their child when they are induced. Anxiety levels of parents that were unprepared for their child going limp and the different stages of anesthesia were increased in compared to parents that were prepared through education. The pre-induction stage is where an educational brochure would be beneficial as part of the teaching process. The brochure will include information on the stages of anesthesia, various agents that could be used and their effect. The reasons for the drugs and the intravenous line and also cover the emergence stage through recovery in the post anesthesia care area.

A study done in 1994 looked at the upsetting factors that the parents experienced at induction. In evaluating theses factors it lends to more research to be done to help decrease these triggers for the parents. The upsetting factors were 1) separation from the child after induction, 2) watching/feeling the child goes limp during induction, and 3) seeing the child upset before induction. Prior to the induction, "Education for parents included a thorough discussion of anesthetic procedures and risks. Parents were also given a complete description of what to expect during induction of anesthesia, and instructions regarding appropriate ways of comforting their child during induction" (Vessey, Bogetz, Caserza, Liu, & Cassidy, 1994, p. 277).

This study suggested that the parents have a designated volunteer whose role would be to accompany parents from the operating room and stay with them and offer emotional support if needed. The most typical response from the parents during this time

was that they felt helpless and a tremendous concern for their child. The study ended with this quote "Although parental presence during a child's anesthetic induction is promoted as an excellent way to improve a child's cooperation and reduce the anxiety and stress of having to separate from a parent, these benefits may be at the emotional expense of the parents" (Vessey et al., 1994, p. 278). This also brings up interest in other future studies that could research the psychological stress that parents go through during the separation of their child during unfamiliar settings.

Over the last few decades, parents have become more aware or have expressed more desire to be participatory in decisions regarding their child's anesthetic care. A study in 1993 by (Henderson et al.,1993 p. 325) cited these reasons for and against parental presence, from the anesthetists view point. Reasons for parental presence are: 1) there is a reduction in separation stress for the child, 2) the anesthetist's job was made easier, and 3) there was reduced risk of long-term psychological sequelae. Reasons given against parental presence in the operating room are 1) theatre design was unsuitable for parents to be present, 2) the logistics of moving large numbers of parents in and out of the theatres made it unmanageable, 3) the parents' presence often makes the child more upset, 4) the induction of anesthesia can occasionally be difficult and even hazardous, and the presence of a parent would only compound the problem, and 5) the presence of a parent was intimidating to the anesthetist.

In the same study, it was also surveyed why the parents felt a need to be present at the induction. The main reasons stated were to relieve their child's anxiety. A total of 126 questionnaires were filled out appropriately and used in this study. Ninety five percent of these parents felt that their child expected or deserved to have them present at

induction. Seventy percent of these parents stated that being present at induction would reduce their anxiety level. An approximate 58% wanted to prevent their child from having a "bad experience" and 48% wanted to help the anesthesia provider (Henderson et al., 1993).

The majority of studies that were reviewed were in support of the presence of parents at induction. Having said this, many anesthesia care providers would make a statement that being present at the induction is not a right but a privilege that the anesthesia team can evaluate and decline if they see fit. Some parents are not appropriate to be in the operating room. This may be due to the high level of anxiety the parents have by bringing their child to the operating room, the level of anger about the situation, or a parent who shows volatile behavior. Anesthetists have the duty to decline the parental presence if, in their opinion, it would be detrimental to the patient or be too disruptive to the operating room staff or flow of the surgery. "Ideally, the parents as well as the child should be assessed by the anesthetist during the preoperative visit with regards to the suitability of parental presence during induction" (Roman, Barker, & Reilly, 1993 p. 338). Anesthetists should always evaluate the parents as well as the child in the holding room. During this time the anesthesia care provider can assess the parents' knowledge and stress level to determine the appropriateness of the parent in the operating room for induction. Unfortunately not all parents are suited to accompany their child to the operating room. The literature has noted that having the parents around at induction can sometimes be detrimental to the patients as well as the process of induction. Keeping this in mind, each procedure should be determined on a case by case basis for appropriateness of PPI.

Many concerns come from the idea that "parental presence prolongs the induction process, distracts the anesthesiologist, and increases the anxiety of both the anesthesiologist and the parent(s)" (Munro & D'Errico, 2000 p. 398). Studies have yet to prove or disprove this theory. As anesthesia providers and as givers of care, they need to decide what is best for patients and implement what is right for them. Many views exist throughout the studies as "for" or "against" the presence of parents at induction. Health care professionals will always be challenged to make the best decision for their patients and take into consideration the parents.

Education has been the underlying theme throughout the literature review. Results of studies have indicated over and over again that education is a highly effective tool, which needs more development and further review with adequate implementation in all hospital settings not just specialty hospitals such as children's hospitals. According to Koinig's study in 2002, introducing a written informational pamphlet significantly improved parental information and increased parental satisfaction. Parents who were not given the informational packet were observed to have increased anxiety due to their lack of information.

A comparable study by Bellew, Atkinson, Dixon, & Yates, 2002 looked at informational leaflets to parents versus giving the information orally and also found that the group that was given the informational leaflet was better prepared and had decreased anxiety about their child going to the operating room. The idea of going to surgery promotes stress due to the unfamiliarity to the environment and lack of information. The studies noted above were both consistent in the need for increased knowledge, which leads to better parent satisfaction and decreased anxiety. The goal of parental presence at

induction is to enhance the operating room experience for both the child and the parent. Given the correct information and allowing the parents to be involved in their children's care can be an extreme benefit in improving outcomes after surgery. Koinig (2002) noted in the study that an increase in anxiety of the pediatric patient could lead to negative postoperative problems such as nightmares, separation anxiety, and eating disturbances. The need for increased parental information is clear, if practitioners could avoid the adverse effects of increased child anxiety by educating the parents it would seem that the education would be critical in the well being of all involved.

Preoperative Education

Different educational tools have been studied over the last few decades, one of which is the pre-anesthetic video. The positive outcomes from video education suggest showing a video the day before or the morning of surgery will help decrease anxiety levels in parents and patients. "Preoperative anxiolysis for parents is important because parental anxiety has been identified as a risk factor for preoperative anxiety and postoperative maladaptive behavior in children" (Cassady, Wysocki, Miller, Cancel, & Izenberg, 1999, p. 246). The video from this study illustrated an induction of anesthesia and offered details explaining the process. Another part of the video explored the tour that may be given during this period. The study stated that the parents found the video helpful and reminded them of questions they had wanted to ask the anesthesia care provider. The clarification of questions and the video decreased the anxiety of the parents which subsequently decreased the child's anxiety.

The review of literature revealed a comprehensive plan to introduce the information to the parents who want to be present at induction. The 2003 study by Himes, Munyer and Henly states:

> A written, interdisciplinary plan of care would facilitate the teamwork needed to provide optimal preparation for parents who want to be present at their child's induction. The teaching plan should include information about procedures, child's behavioral responses, sights, and sounds of the operating room, and expectations for parental conduct, including dressing in operating room clothing and when the parent will be asked to leave the operating room. (p. 296)

This overall view is the goal of this independent study. Formulating a comprehensive brochure could help alleviate the anxiety of parents and increase their knowledge. Preoperative guidelines have been designed in many hospitals in hopes to lessen the anxiety of parents. A study by Miller (1999) used the Amsterdam Preoperative Anxiety and Information Scale (APAIS) and the Standard Anesthesia Learning Test (SALT) to conduct their study. A total of 85 parents participated in an evaluation of the effects of a videotape about pediatric anesthesia and the need for further information. It was noted in the study that even with basic information provided some parents still desired more information about anesthesia and their child. This led the study to conclude that more detailed information may be needed for a certain amount of the population. The study also concluded that "parental anxiety can influence children's coping with medical procedures, proactive education may reduce the negative postoperative outcomes caused by anxiety." (Miller, Wysocki, Cassady, Cancel, & Izenberg, 1999, p. 8)

Pharmacological Method

Providers have been using pharmacological means to sedate the pediatric population for surgery for many decades. The thought was to calm the patients and the parents would follow. There are studies that support the primary use of premedication alone. Midazolam has been used heavily in the pediatric population for the purpose of decreasing the separation anxiety felt by the patient when the anesthetist takes the child back to the operating room. "Midazolam is a short-acting benzodiazepine that is very lipophilic at physiological pH, which accounts for its rapid onset of action" (McCann & Kain, 2001, p. 101). This medication can be given via many routes: intravenous, rectal, orally and nasally. It can also be given sublingually, but this is not recommended.

Anesthesia care providers need to account for the lead time that they need for this medication to adequately sedate their patient, usually 15-20 minutes is an appropriate amount of time for this to be accomplished. Is there enough time to make all the pediatric patients comfortable with medication, or would the increase in preoperative teaching meet the same goal without the use of extra or unneeded pharmacological means? Other studies have looked at the increasing amount of day surgery cases and the limits to using pharmacological means due to the slower discharge rates. According to Zuwala and Barber (2001) "The increase in outpatient surgical facilities has necessitated a decrease in recovery time spent in the hospital and permits for earlier discharge, thereby decreasing the use of long-acting premedications" (p. 21).

Pharmacological means of sedation by the anesthesia care provider has been the easiest way the provider has had to help manage the anxious child and the parent. The debate for either the pre-medication and/or the parent presence at induction continues.

The combination of the education and pharmacological means seems to be an even balance that meets the needs of the anesthesia care provider, the patient, and parent. Studies have been conducted for several years on this topic. The conclusion to a study conducted by (Kain et al., 2000) stated: "PPI in addition to 0.5 mg/kg oral Midazolam has no additive effects in terms of reducing a child's anxiety. Parents who accompanied their children to the operating room, however, were less anxious and more satisfied" (p.939). This would lead the reader to believe that parental presence would only benefit the parents and not the patient having surgery. The study further concludes that parents were noted to have significantly less anxiety after separation compared with the parents who did not accompany their children to the operating room. A limitation of this particular study did not compare parents that were present at induction without medication. Therefore, this study would not be complete in this particular focus.

A previous study by Kain, Mayers, Wang, Caramico, and Hofstadter (1998) did compare three groups: a parental presence group; a Midazolam group; and a Control group. The control group went to surgery without either premedication or a parent. In the discussion of this article the conclusion stated: "Under the conditions of a randomized controlled trial, oral Midazolam before surgery is a more effective intervention than either parental presence or control for managing a child's and parent's perioperative anxiety. In addition, pre-medicated children were more compliant during induction of anesthesia" (Kain et al., 1998, p. 7). A general consensus from the cited studies was to say that the premedication of the child is the easiest for the anesthesia provider and made the separation from parents an easier transition. However, other studies have intertwined the parents into the scenario for further compliance of the children. Others are being

challenged to only use parental presence instead of medication as the same day surgery centers become more popular and discharge times are more critical in getting patients out of the centers earlier. The increased parental information could greatly enhance this area of growing popularity.

The parent-child interaction can be used to allay the anxiety of the child and reduce the perceived threat and stress. As a majority of pediatric surgical procedures are increasingly undertaken on an ambulatory (day case) basis, the use of premedication to sedate the child prior to separation from the parent is avoided as it is not always possible to achieve optimal timing and dosing (Kam, Voss, Gold, & Pitkin, 1998).

The debate of parents' presence in the operating room will be one that will go on for some time to come. The reality of busy operating room schedules, less time for turn over and the fast pace of the hospital setting, this question may never be answered.

Is it faster and safer to pre-medicate the children or is it just as fast or faster to educate the parents prior to the procedure? To summarize the literature for the presence of parents at induction this study stated "Sedative pre-medication is effective in reducing child anxiety, but, in unpremedicated children, parental presence has a role and should not be discouraged"(Watson, 2001, p. 182). In our fast paced society, today is parental presence is still seen as a time consuming effort of the hospital staff and is sometimes overlooked for the benefits that could be achieved. As this author has shown throughout this literature review although there are many ways to address the issue of PPI, the underlying theme is education. Education is a vital part of our lives whether you are an anesthesia care provider, the physician or the nurse. It is the hope of this study to be able

to design a tool that would work for all involved and make it friendly enough to be understood at many learner levels.

Brochure Design:

The brochure is a tri-fold hand out, that can be given to parents in the hospital packets at the birth of their child, and again in the pediatricians' offices during regularly scheduled well baby check ups. The brochure is intended to be reference material for the parents, provide them with information that will help in their decision making, and help to alleviate some anxiety and questions about anesthesia that they may have but do not know who to ask. The brochure is designed from a professional and parental aspect. The brochure touches on common terms and meanings and also options for anesthesia and hints on who to contact and reasonable expectations they may have from the surgery team.

Methodology and Procedures

The educational brochure being implemented describes the operating room setting and then discusses the anesthesia induction and the stages of anesthesia. Careful description of what parents can expect from the child as they are anesthetized with an explanation of the inhalational agents and the effects that may be seen, are included in the brochure. The brochure will also include information about the intravenous line and why they are needed and the monitoring abilities that will be implemented. The brochure will briefly entail selected medication and the purpose for these agents.

The expertise of the surgical department manager will be sought to gain assistance in implementation of the brochure and elicit cooperation so that this brochure may be given to patients and parents. The educational department should also be contacted for

their input and direction on the best way to implement the brochure. Seeking expert opinions in the surgical area, from working CRNA staff would give the brochure more validity and test for errors regarding the process and the content. Providing the brochure to a select group of parents and allowing them to provide feedback concerning the brochure will begin to test the value of its educational purpose. After all the proper contacts have been made and the brochure is finalized, the next step will be to implement it throughout the surgical area of the hospital. The parents will be given the brochure by the same day surgery nurses during their preoperative interview. Once the parents have read the brochure and had their preoperative interview, an opportunity for questions should be presented with the anesthetist available to them.

Setting and Population

The setting in which this independent study will take place occurs in a rural area of the Midwest with a population size of roughly 55,000 people. The area contains a wide variety of industry from agricultural farmland to commercial industry. The community is highly diverse with higher educational opportunities, railway industry and many agricultural opportunities. The brochure will be given to parents from the community hospital of approximately 300 beds. There is limited availability to a children's hospital located within a 100-200 mile radius. The variety of surgeries that will be handled will be low risk, common surgeries related to the pediatric population, such as tonsillectomy & adenoidectomy, myringotomy and insertion of tympanostomy tubes and various others surgical procedures. The age of pediatric patient targeted for this brochure is from newborn to approximately 8 years old. The socioeconomic status, and educational level will only be considered in making the form user friendly, but this

however has no barring on whether or not the parent should go back to the operating room with the patient.

Evaluation of the Project

Evaluating the project will be done by contacting the anesthesia care providers to see if the anxiety from the parents has decreased in their view. It would also be valuable to contact a select group of parents to see if their experiences were viewed as better than expected and what would contribute to that feeling, if one existed. The other possibility would be to contact the parents the day of surgery before discharge and see what their reaction to the brochure would be at that point. Taking any suggestions and comments that they would like to make and possibly refine the brochure based on several parent responses.

Outcomes

The outcomes that are projected would be that the increase in parental knowledge and decrease in the parent's anxiety about the anesthesia process and make the induction and whole operating room more pleasurable for all involved. This would also decrease the anxiety of the staff and the anesthesia care providers involved in the care of these children. This would hopefully make the entire staff more comfortable and the aesthetics of the operating room enjoyable and increase productivity.

Implications for Nursing

Nursing Practice

Parental presence at induction is a continuing controversy in the medical community and will probably continue to be so for some time. It is important for

medical professionals to continue in the practice of providing safe and effective care for our patients. This may or may not include parental presence.

Three treatment options were presented in this independent study. Several studies have been presented each of which are options. It will be up to the individual provider and the hospital policy to decide on the best course of action. The parental presence alone is the hardest to see in nursing practice. The preoperative education with the parental presence seems to have the widest implications in the operating room setting, considering the increasing number of same day surgeries and decreasing turnover times. The better prepared the parents and the less anxious the parents, the better the outcome from the perspective of patients and anesthesia team members.

Nursing Research

Continuing research would be helpful in this setting due to the increasing popularity of the Same Day Surgery Centers that continues to gain in numbers. The recommendation for research for this setting would be to increase awareness in all hospitals and also in the general public. Using physicians' offices and initial newborn stages to help facilitate the learning process could significantly increase the parental knowledge. The research should consist of volunteer studies that focus on the parental presence aspect as well as the increasing knowledge.

The separation anxiety could be further studied to understand the best way to handle the separation at the holding room or in the operating room. Continuing research can only enhances the quality of care given by all involved.

Nursing Education

In-services and continuing education to the anesthesia provider and others in the operating room team can help to implement this nurturing and pleasant experience for these younger patients. Using a collaborative approach involving nursing, educational services and child life specialist to increase awareness of the idea of PPI. Providing these opportunities to parents can only serve to better educate ourselves and others. Hospitals that specialize in pediatric care continually explore means of giving more effective care and serve as examples for pediatric patient care in all settings.

Nursing Policy

Increasing awareness of parents and the ever changing world we live in should promote a environment that lends itself to a solid policy about the presence of parents in the operating room. A policy established to provide guidance for anesthesia care providers would lead to a decrease in unsatisfied parents and better patient outcomes. These things are paramount in today's society of healthcare. Currently no policy exists for parents in the operating rooms around the country unless you are specifically at a children's hospital. Finding a policy for PPI in hospitals is a rarity that is unfortunate and could be solved with more education and perseverance from the staff and parents in the community.

Recommendations for further studies or investigations

As stated earlier, the need for further study is essential to continue to improve care in the area of children in our operating rooms. Throughout this literature review it was noted that for the majority of the studies parental presence was found to be

beneficial, however the need to address smaller hospitals and rural areas need to be a priority. Further studies could look at combining the preoperative interview, the video and a tour together. Evaluations from the hospital staff could evaluate if any difference in the attitudes of the parents were observed

In conclusion, the increased parental education will decrease the anxiety of parents. The increased knowledge base of the parents should make the operation room environment pleasurable, safe and beneficial for all members of the anesthesia care team.

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Recovery and going home:

After the surgery is over your child may seem drowsy and unaware of his/her surroundings, this is normal and resolves with time. Hearing your voice will help the child relax and sleep more deeply. The nurse will tell you when it is safe to give your child a drink. It is important that you take it slow and easy as not to upset the child's stomach. Recovery is usually about an hour and after this time you will either go back to your room or to the outpatient area and wait until it is safe to take your child home.

Contact information:

For further information about anesthesia and your child please contact your local hospital to arrange an interview with the anesthesia care providers at your facility.

Parent's Guide to their Childs Anesthesia

Dedicated to my son Alexander

This brochure is meant to explain common terms, answer questions, & open up options for your child

We feel it is important for the parent to prepare the child for surgery, this helps take some of the unknowns away. We ask you avoid phrases like "being put to sleep", this term tends to worry children. It has been shown that children tolerate surgery and anesthesia better if they are prepared ahead of time.

Let your child know that the team in the hospital is there to help them and will keep them safe.

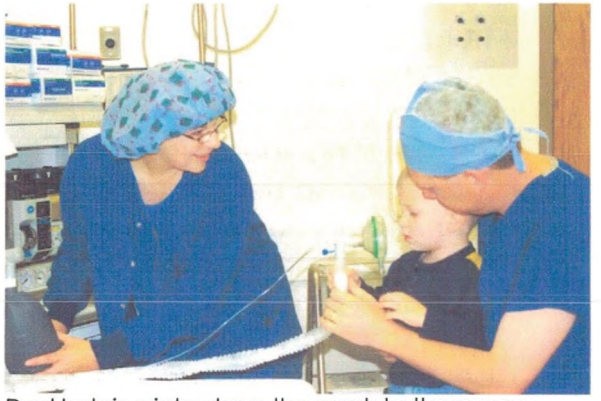
An operating room tour is always helpful if you choose to participate in one. We encourage open communication with the anesthesia providers and the parents as well as the child. The better informed everyone is the better the patient will tolerate the experience of going to the operating room.

NPO Status:
This term means nothing by mouth. (Usually 4-6 hours) The stomach needs time to empty and rest prior to anesthesia. If the stomach has been working the chance of stomach contents, such as food, entering the lungs (aspiration) will be increased.

Premedication:
"Premedication" is medicine that can be given to your child prior to anesthesia. The medication helps in relaxing the child and starts to make them a little sleepier. The medication also allows the child to not be concerned with others around them. When the anesthesia provider comes to take him/her to the operating room the child usually does not care and goes willing. This medication can be given either intramuscularly (IM), intranasal, intravenously (IV),and the preferred method of orally (PO).

Parental presence at Induction:
A nurse anesthetist or anesthesiologist will accompany your child to the operating room. Your child will be allowed to bring a favorite item with them such as a teddy or a doll. A parent can come with the child to the operating room in some instances; you may be asked to put on a gown and will be given specific instructions about going to the operating room. The anesthetist will explain the type of anesthetic that will place your child in a sleep state. This may be either the intravenous route if one was started in the holding area or it may be by inhaling "sleepy gas". Once your child is asleep, you will be asked to leave. At this point you must turn and leave so the anesthesia provider caring for your child can take care of your child and all focus can turn to him/her. The anesthesia provider has many things to do quickly to ensure the

Anesthesia delivery



Dad helping introduce the mask to three year old Joshua

The team for your child:
There is a long list of people that will be taking care of your child. You will have your family doctor or pediatrician and the surgeon. You will also have an anesthesiologist and/or a nurse anesthetist as well as a host nurses, scrub techs, surgical assistants and recovery room nurses. The operating room will be full of specialized equipment used during the surgery.