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ISSUES OF PRE-AND POST OPERATING CARE FOR CHILDREN WITH DISABILITIES: NURSE PRACTITIONER ROLE IN PRE AND POST-OPERATIVE CARE IN LIEU OF DEDICATED CHILD LIFE SPECIALISTS IN ISRAELI HOSPITALS

МЕДИЦИНСКИЕ НАУКИ

Introduction

Anxiety is the most commonly reported emotion of children when confronted with surgery or stressful medical procedures and a risk factor for pre-, intra and post-operative complications. It is estimated that 60% of children suffer from anxiety in the preoperative period. Excessive anxiety and stress can affect children's physical and psychological health and it has been associated with number of negative behaviors (e.g. agitation, crying and spontaneous urination), also it hinders their ability to cope with surgery and may also inhibit their post-operative recovery. Hospital stay itself is a source of fear, confusion and emotions that are hard to process for young children and those with communication or developmental delays. Exposure to hospital environment, operating room, being away from the comfort of the familiar, new sensory triggers, new people, observing others in pain, will have a significant impact on a child's mind and emotional health. Unfavorable experience in these circumstances can result in fear towards medical staff, feelings of mistrust and betrayal towards family members and sometimes leads to severe consequences like post-traumatic stress disorder.

These experiences are amplified and further complicated for children with Autistic Spectrum Disorder (ASD) and other behavioral, language and communication disorders manifested by developmental delay. Children ages 2–7 and young patients with ASD face many physical, psychological, and social challenges which affect their ability to cope with the routines of hospital-based care. They may exhibit high levels of anxiety when faced with hospital treatment, and may have difficulty conforming to the usual pattern of care in a different environment. Because of the underlying medical problems across many organ systems of the special needs patients, routine procedures such as MRIs, endoscopies, colonoscopies and ear tube placement are all common medical procedures that cause great distress and may require anesthesia. In extreme cases, children may become so un-

cooperative that their procedure is postponed or abandoned, or can only be undertaken with the use of heavy sedative premedication or restraint, which raises the risks of serious complications such as massive developmental delays and loss of psychological gains, and in severe cases even death. Please note, the term 'special needs' used here encompasses learning disability ($IQ < 70$), language and communication disorder and any physical and emotional disability that prevents a child from coping well with new experiences.

Problem. While extra psychological and social aspects of care are required in order to protect the wellbeing of these young patients and patients with behavioral and cognitive disabilities, yet the medical and social systems in Israel and other countries are often forced to overlook this need and resort to drastic measures such as premedication, sedation and restraint due to a number of factors such as economic, financial, administrative oversight and lack of advocacy on behalf of these patients and their caregivers. Despite research in this topic which found play therapy and visual aid communication to be effective in reaching the goal of decreasing psychological stress in pre and postoperative children and those with developmental and cognitive delays, such methods are commonly ignored and not utilized by the Hospitals throughout the country. There is not a program in place for provision of the much needed social and psychological support for pediatric patients in general hospitals as part of the healthcare system. Surgery departments are often understaffed and overwhelmed and there are no extra state subsidies to cover the costs of a Child Life program or a comprehensive program that trains the Hospital staff on identifying the special patients and providing the proper perioperative and post-operative care to this underserved patient demographic to minimize the risk of complications and maximize the standard of care. Most prevalent social and medical inadequacies seen in Israeli Hospitals today include:

- Lack of procedures/programs in place for preoperative special care which includes anti anxiety techniques such as role play therapy, music therapy, sensory demonstrations and when possible, building of trust relationship during outpatient care before an elective procedure;
- Lack of staff knowledge and understanding of the specific challenges faced by families of young children and children with special needs who have to be hospitalized;
- Heavy reliance on family caregivers in hospital when caring for young and special needs children;
- Difficulties in ensuring young and special needs patients are adequately supervised when family members are not present;
- Consideration of the impact of the child's hospitalization on caregivers and families;
- Difficulty in coping with the routines or unpredictable nature of the hospital setting;
- Difficulty addressing the challenge of managing the activities of daily living, including feeding, moving and handling, entertainment, and hygiene needs when outside of the familiar home environment.

Understanding and minimizing some of these potential sources of frustration can greatly improve a family's experience and minimize anxiety level of the young patient, therefore leading to a more favorable psychological outcome of the procedure and improving the process of recovery.

Hospitals must focus on higher standard of care for pediatric and special needs patients: alternative solutions and extra care

Current experience and research shows the following major areas where these services are needed the most: preoperative and post-operative preparation of children ages 2–7 and children with learning disabilities including routine diagnostic and investigative invasive procedures (MRI, Anesthesia, blood draw). This requires focus on minimizing a child's anxiety without adverse and drastic sedation methods to maximize care and outcome by employing a number of alternative techniques and enforcing the implementation of the process throughout the hospitals.

Both the child's and the public interest is served by implementing Child Life Services training in all hospitals that provide surgical services to children. In absence of full time staff therapist or child life specialist, nursing staff of the surgery department must be trained in the basics of providing the higher standard of care for these pediatric patients and their families.

Child life programs facilitate coping and the adjustment of children and families in 3 primary service areas: 1) providing play experiences; 2) presenting developmentally appropriate information about events and procedures;

and 3) establishing therapeutic relationships with children and parents to support family involvement in each child's care. Although other members of the health care team share these responsibilities for the psychosocial concerns of the child and the family, for the child life specialist, this is the primary role. The child life specialist focuses on the strengths and sense of well-being of children while promoting their optimal development and minimizing the adverse effects of children's experiences in a hospital setting.

Improvements and reform needed to raise the standard of pediatric and special needs patients' hospital care:

Special care must be taken for preparing pediatric and special needs patients for invasive pre and post-operative procedures and anesthesia.

More care must be taken to find effective ways to meet their individual needs, particularly in areas such as information, communication, and pain assessment in order to minimize distress and create a calm and positive experience for the child and family.

State support needed to establish Child Life programs staffed by qualified personnel at major Hospitals that provide pediatric surgical services that will shift certain care responsibilities to a dedicated team of child life specialists. Based on the experience of our western colleagues, to succeed, these programs must be implemented and enforced by the Hospital's Administration and embraced by all involved in the process at every stage.

Where a dedicated Child Life program is unattainable for a surgical center or Hospital, the Nursing staff must be thoroughly trained in provision of child life services and must be able to:

- (1) Identify a patient in need of special care;
- (2) Identify the level of understanding and developmental cognitive abilities of young patients and communicate accordingly;
- (3) Intervene and advocate on behalf of patient and family to provide coping strategies and education;
- (4) Provide safe and effective pre and post-operative support and employ alternative methods proven to reduce the anxiety and improve outcome; and
- (5) Educate a patient and family thoroughly using developmentally appropriate content and delivery methods to deliver successful and positive surgical experience.

Documentation and training materials and alternative communication aids must be available for the Nursing Staff.

Hospitals should have dedicated child life areas where play and alternative therapies such as play, role play, visual aids, video games and other distraction and refocusing activities would be available for pediatric patients.

Distraction kits and other aids should be available for the Nursing Staff.

Parents must be provided counseling and informed of their care options throughout the entire hospital stay.

Recommendations for the pre and post-operative care:

The perioperative period is particularly important because it is very difficult to manage an anxious and fearful child posted for surgery and facing procedures like MRI and anesthesia prior to the surgical operation. It is of utmost importance that the antianxiety measures should start pre-admission in cases of an elected procedure or immediately after admission in urgent cases and all involved are properly informed, trained and conscious of the challenges. Staff must be trained to identify circumstances that call to employ necessary behavioral cognitive techniques to minimize the psychological effects on the child and maximize effectiveness of care.

Preoperative assessment and investigative procedures: History and examination stage challenges: patients may be unable to describe symptoms or give an account of their medical history; the objective view and history from the parents/caregivers is therefore very important. If patients also find it difficult to accept the physical contact of an examination, it may be necessary perform an examination under anesthesia and make an on-table decision on surgical management. Although it allows some flexibility, this approach may complicate the consent process and require the surgeon to speak to parents while the child is anaesthetized. Patients may be unable to understand the instructions required to perform investigations (e.g. pulmonary function tests) and may have difficulty cooperating with more invasive investigations (e.g. blood tests, MRI scans, ultrasound). The role of Child Life Specialist and Nursing staff in using alternative techniques such as play role therapy, visualization and other refocusing techniques are needed to minimize stress and anxiety. In severe cases, compromises may also be required (e.g. opportunistic blood sampling while anaesthetized).

Admission process Challenges include:

Preparation: young children and special needs patients have limited understanding of the reasons for being in an unfamiliar environment and for the necessity of procedures, which may be uncomfortable and even painful. Complicated by the fact that patients may be unable to communicate their distress in a way hospital staff can understand, and may demonstrate uncooperative or even disruptive behavior.

Routine disruption: young children and special needs children often depend on a familiar, sometimes rigid, daily routine, and find the alteration of this routine in hospital difficult to tolerate. Particular issues in the Hospital include waiting for long periods in crowded, noisy areas and prolonged fasting before a procedure.

Postoperative Challenges include:

Pain assessment and management: children under age of 5, children with low IQ or language and communication disorders may not be able to describe the location or nature of their discomfort or use self-rating pain scales. Validated observational scales such as the FLACC score or scales based on knowledge of individual pain behavior may be required to ensure adequate pain management.

Cooperation with physiotherapy and motivation: patients may be able to comply with passive forms of treatment, but may not be able to undertake self-motivated exercise and therapy that would otherwise enhance recovery.

Need to identify, understand and address factors that evoke anxiety in children in a hospital setting by the Hospital Staff:

In order to minimize the level of anxiety, it is necessary to identify and address the factors that evoke anxiety in children about to undergo surgical operations in a hospital setting. The research has shown that in the operating room, the child's exposure to new surroundings, people in control, new sensory experiences and their fear of painful physical stimuli result in the exaggerated sense of helplessness that takes over the child's emotions. Parental absence, anxiety or reduced control over the situation cause further frustration and fear, which overshadows the efforts of the healthcare providers to soothe the child. Researchers have found several factors which contribute to the preoperative anxiety in children which includes:

Fear of physical harm or bodily injury in the form of pain, mutilation, or even death;

Separation from parents and absence of trusted adults, especially for preschool children witnessing parental anxiety;

Unknown and unfamiliar place, persons and routines, hospital food, clothing, and play;

Uncertainty about "acceptable" and normative behavior in a hospital setting;

Loss of control, autonomy, and competence;

Exposure and touching by strangers/feeling of shame; and Medical jargon;

In the preoperative period there are also certain time points when the anxiety reaches the maximum. These periods or the 'stress points', if not appropriately taken care of, the children try to put maximum resistance to the caregivers. The stress points include separation from the parents and trusted adults, placement of the child on the operating table, visualization of medical equipment, attachment of monitors, placement of IV, getting into the MRI machine, etc.

Hospital personnel must be able to identify and address these stress factors on a level and using tools relevant

to the cognitive development of the pediatric and special needs patients.

IMPROVEMENTS MUST BE MADE IN NON-PHARMACOLOGICAL MANAGEMENT OF PEDIATRIC AND SPECIAL NEEDS PATIENTS TO INCLUDE:

Behavioral interventions starting with preoperative interview: This is the most important step to build trust and develop rapport with the child and family. Explanation of details of OR, surgery and anesthesia in age and education appropriate terms not only helps to alleviate anxiety of the parents but also develops a sense of self confidence in the child.

Preoperative information program: Children and parents should be informed adequately regarding the perioperative incidences beforehand through any or multiple communications appropriate to their age, education and intellect in preoperative clinic within two weeks of surgery. Modes include printed leaflets, children's books, pamphlets, videos, play, tours of the facility, etc.

Behavioral education program: Several behavioral interventions have been used successfully to reduce preoperative anxiety and among them development of coping skill was found to be most effective. Other modes include modeling, therapeutic play, operating room tour and visual aids, music therapy, dance therapy, clown nurse or clown doctor therapy. Coping therapy may include deep breathing, counting, watching a video or handheld game. Distraction is very effective form of coping for young children.

FOCUS ON THERAPEUTIC PLAY AS A SOLUTION FOR PEDIATRIC AND SPECIAL NEEDS PREOPERATIVE CARE:

Therapeutic play is defined as a framework of activities taking the psychosocial and cognitive development of children into account, in order to facilitate the emotional and physical well-being of hospitalized children (li). Another definition refers to play as a structured form of play activities designed based on the age, development of cognitive functions, and health condition of a child.

Play is a primary form of communication for younger children and provides an effective method for the presentation and exploration of medical concepts while permitting insight into the child's understanding of the situation and level of coping. Play can be spontaneous or recreational, expressive or therapeutic.

Spontaneous or recreational play is play activity in which the child chooses the items and activities, and it can provide distraction from stressful circumstances. Expressive play provides a means for expression of feelings, release of energy, and relaxation.

Medical play combines spontaneous and therapeutic play to prepare children for medical or nursing procedures

through the use of hospital-related "props" such as syringes, masks, and dolls with intravenous lines, incisions, and chest tubes. These items are used to convey information and give children opportunities for "hands-on" learning. During the play session, concrete simple explanations can be offered, and misperceptions can be corrected. Medical play using a beloved doll or stuffed animal often works well, because it allows the child to be in a position of control as the doctor or nurse and play/act accordingly.

Play in the hospital has multiple objectives, while it is of such considerable importance that it is thought that it may be of assistance in the recovery of ill children. Medical play sessions offer an ideal opportunity for assessment of children's current level of coping, medical information, and areas of misperceptions. This technique involves directed play and thus requires the involvement of a trained health care provider such as a nurse, child social worker, or child life specialist. Therapeutic play is effective in reducing children's anxiety and fears from the time of hospital admission to the postoperative period or hospital discharge, achieving self-expression cooperation during painful procedures, and willingness to return to the hospital to continue their treatment.

Apart from the alleviation of psychological distress, therapeutic play also seems to be effective in reducing the physical symptoms of anxiety. The hospital area makes spontaneous play very difficult, since family and known objects are absent, daily routines have been interrupted, and, at the same time, there are real or suspected risks of infections, medication, and invasive medical procedures.

Assistance provided by therapists is of great importance, since young children usually find it hard to play spontaneously, especially in an environment like hospital environment. However, even when they manage to play spontaneously, their play is usually not so productive as if it had been organized by a specialist. To maximize the benefit resulting from playing, its use as a part of a well-designed healthcare plan must be systematically promoted.

Psychological and Behavioral Outcomes:

Several studies have shown that therapeutic play is effective in decreasing anxiety and fears for children from the time of admission to immediately after surgery and to the time of discharge. One of the defining features of therapeutic play is its ability to elicit emotional expression leading to greater psychological well-being for a child in the hospital. Accordingly, in studies where children were offered therapeutic play, they exhibited greater cooperation during stressful procedures and were more willing to return to the hospital for further treatment. Results showed that children who engaged in therapeutic, non-directive play showed a significant reduction in

self-reported hospital fears in comparison with children from other groups.

Physiological Outcomes:

In addition to relieving psychological stress, therapeutic play is also effective in reducing apprehensive physiological responses, such as palm sweating, excessive body movement, escalating pulse rate and high blood pressure. Children who are provided opportunities for therapeutic play show less physiological distress, as indicated by lower blood pressure and pulse rate and shorter time between surgery and first voiding.

Suggested Method of Role Play that has proven to be most effective: Suggested is a method of play therapy which in experience has proven to be immeasurably helpful to relieve preoperative anxiety and very easy to conduct in any setting on a low budget. Although there is currently not a comparative model to support its usefulness, this technique was developed and employed by the author with patients under the care of the Pediatric Nursing staff:

At the end of preoperative clinic session, the children posted for surgery in the next two weeks are taken to the preoperative preparation room. Each of them is assigned a role to play (e.g., surgeon, anesthesiologist, patient, nurse, or assistant depending on number of children). The anesthesiologist guides them by preparation of a script and the parents help them to follow their roles. A bed as an OT table, an unused anesthesia machine, face mask without attached circuit, empty saline bottles, infusion sets, venous cannulas leads are used to mimic a perioperative situation. The cannula is attached (not introduced) to the child (playing the role of a patient) with adhesive tape. Fake injections are administered through tubing. The culmination of the play is regaining consciousness in the recovery room.

The primary target of this game is to make the children aware of the perioperative environment and thereby reduction of anxiety at several stress points, such as, separation from the parents and/ or trusted adults, entry to operating room, placement on the operating table, visualization of syringes, attachment of monitors, placement of mask and to some extent intravenous cannulation. This period also helps in development of rapport with the child as well as the parents and creates a feel-good effect on the child's mind.

In a study on 203 school age children, Ho Cheung et al used a kind of therapeutic play one week prior to the surgery and compared the results with using traditional information (2008). They reported that these kinds of interventions might be effective to reduce the anxiety level during pre and postoperative periods. Most of these interventions were used several days prior to the operation and necessitated the admittance of children in the

hospital days before the surgery. In a study, Golden et al. (2006) determined whether giving a small toy to a child would decrease anxiety. Using m-YPAS, they found that the value of anxiety is lower in toy groups than no-toys group. These studies came to a similar conclusion as we did, yet our outcome results were higher.

Interactive Books and Games

We successfully uses interactive books, which allow children to independently show the localization of their pain, as well as its intensity level, express (draw) their feelings which they experience at the moment. We also use elements of play therapy, quite successfully I might add. For example, some studies have noted is the fact that video games make it easy for the preoperative period and reduce the stress level in patients (Patel et al., 2006). Based on the evidence based research, we also added video-play/video-game therapy to our approach.

— As part of our research, we tested on the closed focus group of adults and children, a modified version of the game on the tablet called “Give a gift to a friend” to reduce the level of anxiety and stress in children.

Our current study evaluated the effectiveness of preoperative work with children on postoperative anxiety. This study is unique in the Israeli population and has not been performed up to now. In addition, few studies are available using this kind of interventions for the children who are candidates of a short-term day surgery. The findings of this study can be used in future planning to prevent perioperative anxiety and distress in children. According to the results, no statistically significant difference was observed between the two groups in demographic variables except for age, which was higher in the control group than the intervention group. The the level of anxiety has increased in the both groups after surgery. This increment, however, was not statistically significant. The comparison of the anxiety scores including state trait anxiety, children manifest of anxiety, pre and post operative anxiety shows that there was not a resemblance between the sex groups except for state — trait anxiety scores in the intervention group. Differences in other parameters between boys and girls were not statistically significant. The comparison of mean differences of anxiety score before and after surgery showed no differences between the sex groups in the intervention and the control group separately. Although the elevation of anxiety in each group was not significant, after controlling the effect of age and the baseline anxiety scores as covariant between the groups comparison was statistically significant; this shows that our intervention may reduce the trend of increment in anxiety level.

Pediatric Nursing Staff plays a Key Role in Child and Family Assessment and identification of all affect-ing factors in order to provide age, development and situation appropriate standard of care:

Procedure preparation in a Hospital setting begins with assessment of the children's and parents' current level of understanding and emotional response to the planned procedure. The real, imagined, or potential threats to personal well-being are dependent on many factors, including developmental level, temperament, previous medical experiences, knowledge/information about the experience, family coping patterns, and social support. Identification of support systems for children and parents/caregivers, including spiritual beliefs and practices, is important. Assessment of cultural background, including health beliefs, culturally specific health care practices, and culturally valued ways of expressing care, is also needed. Careful planning and utilization of resources is indicated for the child with special developmental and communication needs.

Assessment of the child and parents/caregivers can occur in the context of either a long-standing outpatient relationship with the surgical team or a newly developed relationship that is primarily procedure focused. In either situation, key areas to assess and explore with families are (1) the child's developmental level and coping style; (2) the patient's and caregiver's understanding of the medical condition and planned procedure; (3) previous hospital experiences, particularly adverse ones; (4) current emotional, cognitive, and physical symptoms and perceived health of the patient; (5) general and procedure-specific fears; (6) family composition, including language, cultural, and religious factors; (7) the method in which information is best processed by the patient and the caregivers (verbal, visual, written, sensory); (8) other family stressors (financial, transportation, social, and other health issues affecting family member); and (9) family/caretaker coping styles and modes of decision-making.

In order to provide the proper assessment, Nursing staff must be knowledgeable in the cognitive Development of the patient in the target category:

Understanding the stages of cognitive development in children is fundamental to understanding children's perceptions of health-related events and information-processing abilities. Age ranges identified reflect rough approximations only.

Sensorimotor Period (Birth to 2 Years) During the sensorimotor period of cognitive development, the infant learns of the external world through the senses (e.g. sucking) and motor actions (e.g. shaking a rattle) as opposed to internal mental representations of the world. The infant develops awareness that people and things continue to exist even when out of site (object permanence). Because of limitations in children's conceptual abilities, preprocedure preparation at this developmental stage focuses on the parents/caretakers. Minimization of pain and other physiological stressors (such as duration of pre-

procedure fasting times) and minimization of separation from parents is of paramount importance. A transitional object, such as a blanket or stuffed animal, can be very effective in soothing the infant during times of separation from parents.

Preoperational Stage (2 to 7 Years) The preoperational stage of cognitive development is characterized by egocentric and concrete thinking. At this stage, children view external events as the cause of illness, cannot conceptualize internal body parts, can use symbols but have single interpretation for words, and think in absolutes (good/bad). Although they are eager to please and curious about their environment, their coping strategies and concept of time are limited, and they usually have limited attention spans. Fantasies tend to dominate, and children at this stage cannot think logically, so they learn through their senses and by trial and error. Separation from parents creates considerable anxiety. During the preoperational stage, learning is concrete and primarily experiential, best achieved through "hands-on" play experiences. Children in this stage can generally assimilate only limited amounts of information (approximately 15 minutes) delivered the day before the procedure, although this is a general recommendation and some children may benefit from earlier exposure to pre procedure preparation. Language needs to be simple and reassuring, without use of medical terminology. Picture books about "going to the hospital" and doctor play kits are excellent tools to promote the children's understanding before hospitalization as well as after discharge to process the experience.

SPECIAL CONSIDERATIONS FOR PRE AND POSTOPERATIVE CARE OF CHILDREN WITH ASD AND OTHER COGNITIVE, BEHAVIORAL AND COMMUNICATION ISSUES

One of the groups of patients which may require the greatest flexibility of approach is those with autistic spectrum disorder. They exhibit difficulty with social communication; difficulty with social interaction and difficulty with social imagination. Patients with ASD may have a lower than average IQ, but they may, in contrast, have normal or even high intelligence. There are many psychological theories which attempt to explain the altered social functioning in people with ASD, including lack of 'theory of mind'; this may help Nursing Staff to understand some of the challenges faced in providing pre and post-operative care to patients with ASD. People with autism have a theory of mind deficit — they have difficulty seeing another's perspective, difficulty in determining the intentions of others, and lack understanding of how their behavior affects those around them.

Pediatric Nursing Staff must be trained to consider the following intricacies in providing care to pediatric patients with ASD or other special needs.

Assessment: Ideally, a checklist should be completed before admission to explore the child's physical and psychological needs, including information on mobility, communication methods, likes, dislikes, and phobias. Measurement of weight, height, and baseline observations can be obtained in the community setting if necessary. Gathering such information in advance is invaluable to help plan the logistics of the day of surgery. For example, provision of a quiet waiting area, and placement first on the operating list to minimize the fasting time. Families should be encouraged to bring to the hospital any activities, toys or other familiar 'comfort' objects which they know will calm their child and keep them entertained. If the child has a 'communication passport' listing information about their needs, routines, and communication strategies, it is very helpful to have this available during the admission.

Previous Hospital Experiences: Previous hospital experiences play an important role in determining child responses to invasive medical procedures, particularly when those experiences are perceived negatively. Studies suggest that naive children demonstrate decreased anxiety after viewing hospital-relevant audiovisual materials, whereas children with previous hospital experiences may have increased levels of anxiety or remain unaffected.

Timing: The timing of preprocedure preparation is another important factor to consider. In younger children (age 3 to 5 years), anxiety levels are managed most effectively with preparation the night before surgery, whereas older children (age 5 to 12 years) respond optimally when the information is presented 1 week before surgery. Preprocedure interventions attempted within 24 hours of surgery may actually increase school-age children's anxiety levels. When only limited preparation time is available, refocusing techniques or distraction may be more effective than other methods.

Role of Parents: Parental participation is integral to the preprocedure preparation process, starting with parental agreement to their child's involvement. Children's adjustments reflect a mutual and richly dynamic interplay of child-parent environmental factors over time. Therefore, goals for procedure preparation include addressing parental concerns and needs so that parents can be more emotionally available to their children. Interventions aimed at facilitating parental coping are of particular importance for younger children and children with developmental and behavioral delays because of their limited ability to use internal coping strategies. Interventions aimed at addressing parental concerns regarding children's hospitalizations have been effective in decreasing parental anxiety and enhancing child behavioral outcomes. Thus, engagement of parents in the preparation process is effective and offers practical benefits

that are particularly important given the limitations of available preparation resources. It is important to remember that information processing is affected by multiple factors, including anxiety and developmental/cognitive level; thus, ongoing validation of the child's and parents' understanding is needed.

Preparation: For children with low cognitive ability, the presence of a familiar caregiver and maintenance of physical comfort are particularly important. Patients with limited spoken communication may already use a form of augmentative and alternative communication (AAC) and providing information using their familiar communication method can aid the child in navigating the steps in the anesthetic process.

Premedication: Children with special needs may require sedative premedication to alleviate anxiety and promote cooperation with anesthetic procedures. Good communication and preparation can aid in encouraging the child to take oral medicine, but it may be necessary to disguise it in cordial or even a teaspoon of a favorite food. Patients may be taking regular medication to modify behavior, which should be taken into consideration on an individual basis.

Patient care: The procedure room should be a calm environment facilitated by the presence of a parent/caregiver, low-level lighting (compatible with safe working practices), minimal extraneous noise, and the fewest healthcare personnel possible.

Communication: One of the most important aspects of high quality healthcare is good communication. Many strategies are available for communicating with unimpaired children, to provide explanations, or influence behavior, including descriptions, stories, training in coping strategies, distraction, metaphor, imagery, and modelling. Some of these options may be appropriate for children with lower IQ, but alternative methods may be more suitable for children with language and communication disorders, for whom conventional communication is difficult or impossible.

Patients with limited speech may benefit from the use of sign language while patients with ASD and limited social understanding may benefit from practical coping strategies, concentrating on how to manage a new situation as well as role play. Examples would be symbol timelines, social stories, and behavioral management programs. Some familiarity with the communication aids used by patients at school and home can help in providing information and encouraging discussion in hospital.

When speaking to a patient with special needs, it is helpful to use simple words and language, to speak clearly and directly, to make eye contact if possible, and to avoid complex forms of language such as jargon, abbreviations, acronyms, sarcasm, or metaphor. For patients with little receptive or expressive language, various alternative

forms of communication should be available to the hospital staff in special cases.

Conclusion

Special preoperative care is needed for children under age of 7 and those with special needs. State and private support is needed to establish and implement Child Life Programs and services in Hospitals that provide surgical care to children.

Pediatric Nursing Staff plays a critical role in providing higher standard of care which leads to better clinical outcomes. Pediatric Nursing Staff must be effectively trained to identify the need for and to provide appropriate level of care for pediatric patients, patients with special needs and their families. Cost savings can result from using individual management plans with children ages 2–7 and children with special needs undergoing surgery in collaboration with parents.

Individualized strategies incorporated in a care plan can optimize quality of care and achieve the healthcare goal.

Pre-admission planning and awareness raising improves the patient experience from family and staff perspective and can optimize access to health care.

Play sessions using play therapy, role therapy offer an array of benefits on every stage of the child's hospitaliza-

tion. It provides an ideal opportunity for assessment of children's current level of coping, medical information, and areas of misperceptions during the initial interview and admission. It also provides coping and anxiety relieving strategies for young children ages 2–7 and children with special needs and communication problems. Research provides evidence for the effectiveness of therapeutic play in reducing psychological and physiological stress for children facing medical challenges. Therapeutic play offers long-term benefits by fostering more positive behavioral responses to future medical experiences. Since childhood play transcends cultural barriers, play opportunities should be provided for children of all ages and backgrounds.

Despite a large amount of literature purporting the value of play, research gaps exist regarding the evaluation of therapeutic play in healthcare settings. Future research must address the play preferences and perspectives of children if evidence-based practice is to reflect the needs of pediatric patients. Since therapeutic play embodies the essence of the child life profession, it should remain the focus of ongoing critical analysis and empirical investigation through maximum utilization of this often ignored strategies at every stage of surgical care.

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