

THE IMPORTANCE OF COMMUNICATION: ESTABLISHING A BOND OF TRUST BETWEEN THE CHILD AND THE ANESTHESIOLOGIST

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Abstract: Introduction: Surgery, like hospitalization, is an experience that brings a lot of anxiety to children. At the time of hospitalization, the child is removed from their family, remaining in a strange environment, where they live with unknown people and are the target of routines and procedures that tend to cause discomfort and pain. In the surgical center, this situation is generally exacerbated. During the period before anesthesia, anxiety can manifest itself in different ways. Some children verbalize their fears, while others demonstrate anxiety through behavioral changes. Objective: The objective of this research was to investigate and highlight the importance of effective communication in building a bond of trust between children and anesthesiologists, aiming to improve the pediatric patient's experience during anesthetic surgical procedures. Methodology: To construct this study, an analysis of scientific articles indexed in electronic databases: MEDLINE, IBECs, LILACS, SCIELO, WPEIM, PUBMED, and SCIENCE DIRECT, following the time frame from 2013 to 2023, where a total of 46 articles were found. The inclusion criteria were articles written in Portuguese, Spanish or English, published within the time frame, full texts, available and free of charge. Articles that did not contain the words "anesthesia" or "anxiety", research that did not contribute to the study and publications longer than the established time frame were excluded from the analysis. Within the 46 articles, 14 were then selected for review and analysis. Results and Discussion: The results analyzed revealed that hospitalization significantly impacts children, triggering stress, anxiety, and fear. Therefore, in addition to pharmacological measures, non-pharmacological measures must be implemented with the aim of reducing and preventing anxiety and, therefore, ensuring a calmer experience for the child. Interventions

such as preparation programs, through different informative and playful modalities, emerge as valuable tools to smooth the process, promoting a more welcoming hospital environment for children. Conclusion: Pediatric hospitalization, especially in surgical procedures, emerges as a challenging experience and is characterized by subjective feelings of tension, fear, nervousness, and worry that can be expressed in different ways. The literature review highlights the significant psychological impact, highlighting the importance of non-pharmacological approaches as a measure to minimize such reactions.

Keywords: anesthesia; pediatrics; anxiety.

INTRODUCTION

Human beings use language as the main means of human communication, and the quality of this communication plays a fundamental role in promoting health and safety, both at an individual and collective level.

Preparation for surgery begins with the patient's admission. The period before surgery is called pre-operative, this moment is divided into mediate and immediate. Being the mediate, the period that goes from scheduling the surgical procedure to 24 hours before the anesthetic-surgical procedure, in this phase anamnesis, physical and imaging exams are carried out, in addition to physical and emotional preparation. The immediate period goes from the day before surgery until the patient enters the operating room. (Eduardo et al., 2021 page: 2)

Surgery, like hospitalization, is an experience that brings a lot of anxiety to children. "Perioperative anxiety is one of the main factors with a negative impact on the anesthetic-surgical experience and an additional risk factor for postoperative complications in the pediatric age group"

(Et al., 2013 page: 474). Children of different ages experience different stress factors during hospitalization. Upon admission to hospital, the child is subjected to a process of separation from their family or caregivers, being placed in a strange and potentially frightening hospital environment. This environment is characterized by the presence of unknown individuals and the execution of routines and medical procedures that can be emotionally and physically overwhelming for the child. Exposure to the operating room environment, in particular, further intensifies this situation, due to its association with invasive procedures and the presence of unfamiliar medical equipment.

The period surrounding the surgery, especially the one that precedes anesthesia, involves the child's fear of being separated from their parents, uncertainty regarding the surgical procedures and their results, causing anxiety and fears that can be verbalized by the child or that can lead to changing their behavior. (Luciana Esgalha Carnier et al., 2015 p. 320)

During the period preceding the administration of anesthesia, it is common to observe childhood anxiety manifesting in different ways. Some children express their fears and concerns verbally, while others demonstrate symptoms of anxiety through behavioral changes, such as irritability, restlessness and refusal to cooperate with health professionals. This phenomenon can be attributed to the child's perception of being in an unfamiliar and threatening environment. Preoperative anxiety is a complex phenomenon, influenced by an interaction between individual, family and contextual factors. Individual factors, such as age, temperament and previous experiences with the hospital environment, can influence how a child deals with anxiety. Furthermore, emotional support from parents and caregivers plays a fundamental role in reducing preoperative anxiety, providing comfort, security and guidance to the child throughout the process. "To reduce the

incidence of perioperative stress and anxiety in children, several preventive strategies have been employed and studied. These can be broadly categorized as pharmacological and non-pharmacological interventions, including: social, communicative and behavioral, environmental, psychological and educational interventions" (Gunilla Löf & Per-Arne Lönnqvist, 2022 p. 601).

It is important to recognize and address preoperative anxiety appropriately, as it can affect not only the child's emotional well-being, but also the performance of the anesthetic-surgical procedure and postoperative recovery.

Infants (0–1 year of age) do not have a rational understanding of why surgery is necessary and may feel betrayed by those who are believed to protect them. The biggest stress for them is probably separation from their parents. Babies are particularly sensitive to their caregiver's reaction. In fact, one way that babies learn how to behave in an unfamiliar situation is through social cues, meaning they use emotional information obtained from a caregiver as a means of evaluating strange situations. This phenomenon also applies to anxiety. Young children (1–3 years), on the other hand, appear to suffer from social isolation and restrictions in independence. Limited experience and inadequate knowledge of healthcare systems can increase a child's feelings of anxiety and fear, resulting in greater vulnerability to the stress of surgery. Preschool children (3–5 years) cannot use abstract logical thinking. They have a limited concept of time, express fantastical beliefs, and may perceive hospitalization as a punishment for wrongdoing. (Capurso & Ragni, 2016)

Parents play a fundamental role in their children's educational background and are often the main source of children's practical and contextual knowledge about the hospital environment and safety.

The literature on child hospitalization moves in the direction of humanization, and, until 1980, articles only addressed the

effects of hospitalization. After this period, the texts started to mention the benefits of parents' participation as companions. This change of focus, in addition to complying with the Child and Adolescent Statute, Law 8,069 of July 13, 1990, whose article 12 mentions that "health establishments must provide conditions for full-time stay of one of the parents or guardians, in cases of hospitalization of children and adolescents", it also occurred due to the perception that the presence of parents during anesthetic induction reduces children's anxiety and improves cooperation. (Menezes & Tomazinho, 2014 p. 96)

The objective of this research was to investigate and highlight the importance of effective communication in building a bond of trust between children and anesthesiologists, aiming to improve the pediatric patient's experience during anesthetic-surgical procedures.

METHODOLOGY

The methodology used in this study was designed to carry out a comprehensive and rigorous investigation of the relationship between anesthesiology, children and anxiety, covering the period from 2013 to 2023. This work adopted a multidisciplinary approach, integrating knowledge from medicine, psychology and health sciences for a more complete understanding of the phenomena studied. Initially, several renowned electronic databases were identified and selected, recognized for their scope and academic relevance. These included MEDLINE, IBECs, LILACS, SCIELO, WPEIM, PUBMED and SCIENCE DIRECT. These platforms were strategically chosen due to their wide range of scientific articles available and the credibility of the sources. To define the inclusion and exclusion criteria for studies, clear parameters were established. The selected articles must be written in Portuguese, Spanish or English, be published between 2013 and 2023 and

be available free of charge in full. Articles that did not explicitly mention the keywords "anesthesia" or "anxiety", studies that did not directly contribute to the study objectives and publications that exceeded the defined time period were excluded from the analysis.

After applying the criteria, a total of 46 articles were selected for an initial review. This selection was carried out independently by two reviewers, with any disagreements being resolved through consensus. Subsequently, 13 articles were chosen for a more detailed analysis, based on their relevance and contribution to the objective of the study. The detailed analysis of the 13 selected articles was carried out in detail, considering several aspects, such as the methodology used, characteristics of the population studied, interventions carried out, main results obtained and conclusions presented. This analysis was conducted systematically, using a qualitative and, when appropriate, quantitative approach. Relevant data was extracted and organized in a way that facilitated understanding and interpretation of the results. The results obtained were then synthesized and grouped according to the themes and trends identified in the studies analyzed. The main findings, identified knowledge gaps and areas requiring future investigation were highlighted. This synthesis provided a comprehensive view of the available evidence and contributed to the construction of an updated overview of the relationship between anesthesiology, anesthesia and anxiety in children. The discussion of the results was carried out in light of the existing literature, promoting a critical and reflective analysis of the clinical and scientific implications of the findings. Issues such as the effectiveness of different approaches in reducing anxiety, the neurophysiological mechanisms involved in the response to perioperative stress and strategies to optimize the management of anxiety in pediatric

patients undergoing surgical procedures were addressed. In summary, the methodology adopted in this study provided a rigorous and comprehensive approach to investigating the relationship between anesthesia and anxiety in children. The insights obtained have the potential to inform clinical practice and direct future research in this field, contributing to the advancement of knowledge and improvement of care for children during the surgical anesthetic procedure.

RESULTS AND DISCUSSION

The results of the analysis revealed that hospitalization has a considerable impact on children, triggering feelings of stress, anxiety and fear. "Anxiety consists of an emotional state with psychological, social and physiological components that can affect the individual at any stage of their development" (Gomes et al., 2016 p.941). This behavior is understandable, as being in a medical environment can be distressing and uncomfortable for children. The emotional tension linked to hospitalization can originate from several sources, including separation from parents, invasive clinical procedures, an unfamiliar environment and disruption of the usual routine. Apprehension and fear can be exacerbated by a lack of understanding about what is happening, as well as by anxiety about the unknown. Furthermore, it is important to consider the fear that children may feel in relation to anesthesia, an aspect that is often neglected, but which can significantly contribute to their emotional state. "Allowing parents to enter the anesthetic induction room shows that there is an effective reduction in anxiety in children and parents" (Menezes & Tomazinho, 2014 p.93).

Anesthetic induction for pediatric patients is a moment that generates great discomfort, both for them and their companions. Young children often do not understand what is

happening, and may relate the moment of hospitalization and the performance of a surgical procedure to punishment. This causes harm to your recovery, as experiencing unpleasant situations influences the immediate post-operative period and can bring back some negative memories, which remain for years. (Binkowski et al., 2018 p.15)

It is extremely important that healthcare professionals adopt delicate and empathetic approaches when interacting with hospitalized children, offering emotional support, clear information and opportunities to express their emotions. Additionally, techniques to reduce anxiety, such as distraction, playful therapies and parental involvement, can help minimize the adverse impact of hospitalization on children's mental and emotional health.

Studies indicate that the effectiveness of these interventions varies according to multiple factors, from the type of intervention offered, the age of the child, the severity of the clinical condition, the length of stay, to the child's previous hospitalization experiences, their temperament and strategies for coping with the situation" (Camilla Volpato Broering et al., 2017).

Pharmacological methods can often be used to treat preoperative anxiety. Midazolam as premedication is considered a reliable strategy to reduce preoperative anxiety. However, it can be a source of stress in itself and therefore strict compliance and timing of administration are required, especially in children, because it can cause high-level impulsivity and delayed awakening from anesthesia. Nonpharmacological interventions are widely supported for use in reducing preoperative anxiety in children due to their advantage of improving children's cooperation without causing adverse effects. Studies have reported limitations of some strategies in reducing perioperative anxiety in children. For example, transportation in a toy car can alleviate preoperative anxiety, but this measure is suitable and effective only for preschool children aged 2 to 5 years.

Some researchers also suggest using clown doctors, video games, and other distraction tools to temporarily alleviate anxiety in children, but it is not yet known whether these methods can help alleviate anxiety in their parents. The presence of parents when inducing anesthesia is effective in reducing children's anxiety levels. (Hout et al.,2023 page: 2)

By adopting a multidisciplinary approach that combines pharmacological and non-pharmacological interventions, it is possible to create a more welcoming and less stressful environment for hospitalized children. This not only improves your emotional well-being, but can also have positive impacts on your physical recovery and overall perception of the hospital experience. Ensuring the safety of anesthesia in pediatric patients requires not only deepening the physiological and pharmacological aspects, but also understanding the psychological complexities inherent to different age groups. The preoperative period often involves an intense emotional burden for the entire family, with a potential significant impact on the child's behavior, manifesting itself in varied and sometimes prolonged ways. "Pre-surgical preparation prioritizes psychoeducation about the disease or invasive medical procedure, strategies for managing emotions, thoughts and behaviors that manifest during hospitalization, as well as distraction, systematic desensitization and guidance for parents" (Ani Carolini Pinto et al., 2023 p.98). Parental involvement is also essential, providing comfort and emotional support to the child during their stay in the hospital.

Preparation must take into consideration, the particularities of each child, age, gender, education, type of disease, type of surgery and health condition, whether or not they have had previous experience of surgery, family and socio-cultural insertion, in addition to their familiarity with the environment, personnel, hospital

procedures and problem-solving style. (Broering & Crepaldi, 2019 p.8)

To establish a bond of trust between the anesthesia team and a child is crucial to ensuring a safe and calm anesthetic-surgical experience. This involves clear communication, reassuring the child and their parents, as well as answering their questions and concerns. Anesthesiologists must adapt their approaches to meet the specific needs of each child, providing a welcoming and safer environment. "Informing and preparing parents and children about what to expect is considered crucial to establishing a good foundation for patient satisfaction, compliance and cooperation during and after hospitalization" (Felder-Puig et al., 2003). Furthermore, patient safety is paramount, with complete verification of equipment and medications and the adoption of strict protocols. Humanization is another essential aspect, involving the compassionate treatment of children and their families, recognizing their emotional and psychological needs. This includes parental involvement in the decision-making process, understandable explanations for the child, and emotional comfort at all stages of the procedure. By integrating these aspects, anesthesiologists ensure not only patient safety, but also a more positive and humanized experience for children and their families.

CONCLUSION

Based on the information provided, it is concluded that perioperative anxiety in children is a complex and multifaceted phenomenon, with significant impacts on emotional well-being and postoperative recovery. Preparing for pediatric surgery involves not only medical evaluation and physical procedures, but also consideration of the psychological and emotional aspects of the child and their family. The reviewed

literature highlights the importance of effective communication, emotional support and parental participation in the process of preparing and monitoring the child during hospitalization and surgery. Pharmacological and non-pharmacological strategies have been studied and implemented to reduce perioperative anxiety, but it is crucial to adapt these interventions to the individual needs of each child, taking into consideration, factors such as age, previous experience, temperament and family context. The role of the anesthesiologist is fundamental in this context, as they are the ones who directly deal with the administration of anesthesia and pain management during the surgical procedure. In addition to their technical responsibilities, anesthesiologists play a crucial role in reassuring the child and their parents by providing clear information, responding to their questions and concerns, and ensuring a welcoming and safe environment throughout the process.

The humanization of pediatric health care, including the creation of a welcoming environment, the establishment of bonds of trust between the medical team, specifically anesthesiologists, and the child, and the active involvement of parents in the care process, are fundamental to providing a positive and safe experience during hospitalization and the anesthetic-surgical procedure. Therefore, a multidisciplinary approach that integrates medical, psychological and social aspects is essential to optimize clinical results and promote the comprehensive well-being of children undergoing anesthetic-surgical procedures. Investing in research and practices that aim to reduce perioperative anxiety and humanize pediatric healthcare is crucial to ensuring a positive, stress-free experience for children and their families. The role of the anesthesiologist as an integral part of the communication process is fundamental to achieving this objective.

REFERENCES

1. Eduardo, C., Marcos, A., Laporte, C., Fernanda, M., & Silva, J. (2021). Vivendo com medo, preocupação e ansiedade: representações de cirurgia para familiares de crianças no pré-operatório. *Research, Society and Development*, 10(11), e292101119671-e292101119671. <https://doi.org/10.33448/rsd-v10i11.19671>
2. de, D., Cagno, G., Zacarias, F., Denis Schapira Wajman, & Telles, S. (2013). Impacto do tipo de informação pré-anestésica sobre a ansiedade dos pais e das crianças. *Revista Brasileira de Anestesiologia*, 63(6), 473–482. <https://doi.org/10.1016/j.bjan.2013.04.001>
3. Luciana Esgalha Carnier, Pereira, H., Gimol Benzaquen Perosa, & Maria, O. (2015). Estratégias de enfrentamento em crianças em situação pré-cirúrgica: relação com idade, sexo, experiência com cirurgia e estresse. *Estudos de Psicologia (Campinas)*, 32(2), 319–330. <https://doi.org/10.1590/0103-166x2015000200015>
4. Gunilla Lööf, & Per-Arne Lönnqvist. (2022). Role of information and preparation for improvement of pediatric perioperative care. *Pediatric Anesthesia*, 32(5), 600–608. <https://doi.org/10.1111/pan.14419>
5. Capurso, M., & Ragni, B. (2016). Psycho-educational preparation of children for anaesthesia: A review of intervention methods. *Patient Education and Counseling*, 99(2), 173–185. <https://doi.org/10.1016/j.pec.2015.09.004>
6. Menezes, S., & Tomazinho, L. D. (2014). Presença de familiares durante a indução anestésica de crianças: revisão da literatura. *Rev. SOBECC*, 92–98. <https://pesquisa.bvsalud.org/portal/resource/pt/lil-723603>
7. Gomes, G. L. L., Fernandes, M. das G. M., Nóbrega, M. M. L. da, Gomes, G. L. L., Fernandes, M. das G. M., & Nóbrega, M. M. L. da. (2016). Hospitalization anxiety in children: conceptual analysis. *Revista Brasileira de Enfermagem*, 69(5), 940–945. <https://doi.org/10.1590/0034-7167-2015-0116>

8. Binkowski, S., Carvalho, G. P. de, & Caregnato, R. C. A. (2018). Percepção do acompanhante do paciente pediátrico durante a indução e o despertar da anestesia. *Revista SOBECC*, 23(1), 14–20. <https://doi.org/10.5327/Z1414-4425201800010004>
9. Camilla Volpato Broering, Duarte, C., Kaszubowski, E., & Maria Aparecida Crepaldi. (2017). Efectos de preparaciones psicológicas prequirúrgicas sobre el estrés y la ansiedad de niños y niñas. *Acta Colombiana de Psicología*, 214–248. <https://doi.org/10.14718/acp.2018.21.1.10>
10. Hou, H., Li, X., Song, Y., Ji, Y., Sun, M., Wang, D., Jiao, J., Qu, J., & Gu, H. (2023). Effect of interactive, multimedia-based home-initiated education on preoperative anxiety in children and their parents: a single-center randomized controlled trial. *BMC Anesthesiology (Online)*, 23(1). <https://doi.org/10.1186/s12871-023-02055-7>
11. Ani Carolini Pinto, Gislaïne Cristina Müller, & Camilla Volpato Broering. (2023). Sentimentos pré-cirúrgicos. *Revista Da Sociedade Brasileira de Psicologia Hospitalar*, 25(2), 96–107. <https://doi.org/10.57167/rev-sbph.v25.479>
12. Broering, C. V., & Crepaldi, M. A. (2019). Preparação psicológica pré-cirúrgica: estresse e ansiedade em crianças submetidas a cirurgias eletivas. *Mudanças*, 27(1), 1–10. http://pepsic.bvsalud.org/scielo.php?script=sci_arttext&pid=S0104-32692019000100001
13. Felder-Puig, R., Maksys, A., Noestlinger, C., Helmut Gadner, Stark, H., Pfluegler, A., & Topf, R. (2003). Using a children's book to prepare children and parents for elective ENT surgery: results of a randomized clinical trial. *International Journal of Pediatric Otorhinolaryngology (Print)*, 67(1), 35–41. [https://doi.org/10.1016/s0165-5876\(02\)00359-2](https://doi.org/10.1016/s0165-5876(02)00359-2)