Communicating pediatric surgery suspension: feelings of the relatives involved in the process*

ABSTRACT
Hospitalization is a complex experience; this can be made worse if surgical intervention is required, especially when the patient is a child. When surgery is suspended, patient and family can experience feelings of insecurity, distress, and anxiety. The objective of this study was to identify and describe the perceptions of fifteen mothers or guardians of children between 0 and 18 years old admitted in a teaching hospital, after receiving news that surgery for their child was suspended. This was a descriptive qualitative study which used Interpersonal Communication as theoretical reference and Analysis of Content as the methodology. Results showed that suspension of pediatric surgery in our institution causes repercussions to patients, their families, and institution organisation; that communication between health team professionals, patients and families is inadequate; and that the nurses’ participation in informing surgery suspension must be effective.

KEY WORDS

RESUMO
A hospitalização é uma experiência complexa, sendo agravada no caso de necessidade de intervenção cirúrgica, principalmente quando o paciente é criança. Quando a cirurgia é suspensa, paciente e seus familiares podem apresentar sentimentos de insegurança, angústia e ansiedade. Este estudo teve como objetivo identificar e descrever a percepção de quinze mães e/ou responsáveis por crianças de 0 a 18 anos, internadas em um hospital, após receberem a notícia de que a cirurgia do seu filho foi suspensa. É um estudo descritivo, qualitativo, que utilizou o referencial teórico da Comunicação Interpessoal e o metodológico da Análise de Conteúdo. Os resultados evidenciaram que as suspensões de cirurgias pediátricas são fatos presentes na instituição, que trazem repercussões ao paciente e familiares, e à organização institucional; que a comunicação entre profissionais da saúde, pacientes e familiares é inadequada; e que a atuação do enfermeiro na notícia da suspensão da cirurgia precisa ser efetiva.

DESCRITORES

RESUMEN
La hospitalización es una experiencia compleja, agravada en el caso de ser necesaria una intervención quirúrgica, en particular cuando el enfermo es un niño. Cuando la cirugía es suspendida, el enfermo y sus familiares pueden manifestar sentimientos de inseguridad, angustia y ansiedad. Este estudio tuvo como objetivo identificar e describir la percepción de quince madres y/o responsables por niños con edades entre 0 y 18 años internados en un hospital después de recibir la noticia de que la cirugía de su hijo fue suspendida. Se trata de un estudio descriptivo cualitativo que utilizó el referencial teórico de la Comunicación Interpersonal y la metodología del Análisis de Contenido. Los resultados evidenciaron que las suspensiones de cirugías pediátricas son hechos presentes en la institución, que traen repercusiones al enfermo y familiares y en la propia organización institucional, que la comunicación entre profesionales de la salud, enfermos y familiares es inadecuada y que la actuación del enfermero en la noticia de la suspensión de la cirugía debe ser necesariamente efectiva.

DESCRIPTORES

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INTRODUCTION

Hospitalization is responsible for patients moving away from their everyday family life to an environment filled with routines and inflexible norms. This may have a negative effect, and individuals may experience feelings such as fear and neediness[1].

For many people, entering a hospital means to go into a hostile place, with professionals that perform uncomfortable actions that are bad and cause pain[2].

If the perspective of undergoing surgery is a moment of crisis and a factor of anxiety and stress for patients, canceling the event triggers a new crisis, following or overlapping the former and thus it deserves special attention from nurses and the whole surgery team[3].

While preparing for surgery, patients bear expectations, doubts and fears about what is about to happen. For patients, the hospital is a strange and unfamiliar place, where they feel being in the hands of the professionals in whom they trust and from whom they expect to receive adequate care. All their worries and expectations are towards the surgery and not the suspension[4].

When a surgery is cancelled, patients and their families often experience an exacerbation of the aforementioned feelings, as they will have to through the whole preoperative period again; they fear, for instance, that there may be another suspension, that problems may occur in the surgery, or that their return to work and family living may be delayed. Hence, anxiety reappears and this time it is even more intense. Anxiety will always appear when there is a threat to the satisfaction of basic human needs. Therefore, feelings such as the fear of the unknown and anxiety increase tension and the levels of stress in patients as well as in their family members[5].

From an administrative point of view, surgery suspension affects the health team as well, in terms of the work operationalization, and the consumption of time and resources, both human and material. Considering the search for continuous improvement of health care quality and the efficiency of the service provided to the population, with resource rationalization being a constant concern of health institutions, it should be emphasized that surgery suspension implies that the institution works without efficient operationalization, and does not rationalize its resources, thus failing to provide quality care service[6].

Surgery cancellation is a failure caused by not observing the administrative planning requirements of the department. To achieve excellence, the hospital should be continuously compromised with resoluteness, quality and low costs of medical procedures[7].

As for hospitalization and surgery suspension, these two factors may comprise painful and unpleasant experiences for children and young patients, because, besides causing a harsh break with their everyday activities, being away from family, social and affective living can generate reactions with regressive behaviors, as well as rage, depression, insecurity, affective rejection, dependence, fear and/or punishment.

Surgical procedures represent a critical episode for any person of any age, generating a life crisis. In children, the problem is more complex, as they are more sensitive and have a limited capacity for logical thinking and for considering the real reasons for that experience. When a child understands the real reason for the procedure, she is able to cope better with the pain and discomfort[8].

The main dilemma experienced when providing health care services to surgical patients is the dissonance between verbal and written information, i.e., one surgical procedure is scheduled but a another similar one is performed and/or the surgery is suspended with no justification and without any written records explaining the reason for the suspension[9].

Surgical treatment for children requires the presence of their parents or legal guardians, which, in addition to being a need to minimize the effects of the parents-child separation, is currently legislated by the Child and Adolescent Statute (ECA, abbreviation in Portuguese for Estatuto da Criança e do Adolescente). Chapter I, Art. 12 of ECA guarantees the full-time permanence of one parent or legal guardian in cases of the hospitalization of children and adolescents[10].

Including the family in the hospital environment created new demands and a new approach for health care...

OBJECTIVES

General objectives

The objective of this study was to identify the main reasons and effects of the suspension of pediatric surgeries on mothers and/or legal guardians of patients who had their surgery suspended, in the period from April to December 2007.
Specific objectives

- To identify the number of pediatric surgeries performed by the 12 specialties of the Surgery Department Technical Section;
- To identify and describe the number and reasons for pediatric surgery suspensions at the Surgery Department Technical Section;
- To confirm if the study subject identifies the professional responsible for informing about the surgery suspension;
- To describe and understand the feelings that arise in the subjects when they experience their surgical procedure being suspended.

THEORETICAL FRAMEWORK

In view of this literature review, and seeking to meet the proposed objectives, this study is based on the theoretical framework of interpersonal communication(13).

Interpersonal communication can be divided into verbal and non-verbal communication. Verbal communication is associated with words expressed through written and spoken language. When we make verbal interaction with someone, we are trying to express ourselves by transmitting, clarifying and validating the understanding about something(13).

Communication is the process of understanding and sharing messages that are given and received. Those messages and the way they are exchanged influence the behavior of the people involved in the short, mid and long term. That influence may be seen even when people are completely isolated, distant from each other or from the environment in which the communication process occurred. That implies that people are constantly involved by an interactional field. This exchange of messages, opinions, perceptions and interpretations permits people to form an image about themselves, of others, and of the world around them. The theories that address interpersonal communication seek to understand the how relationships are established and maintained; the standards established in the relationships that are ruled by the interpersonal needs of inclusion, control and affection; the process of interpersonal perception that is established in the interactions and how people introduce themselves to others; how interlocutors see and understand each other, i.e., how the complex process of social perception takes place, the different degrees of attraction or rejection in the relationship; and finally, the social conflict that may result from or lead to interpersonal communication(14-15).

METHOD

This is a descriptive-exploratory study, which used a quasi-qualitative approach, considering the nature of the study object and the proposed objective. The study was performed at the Surgery Department Technical Section and at the Surgical Hospitalization Units of a tertiary teaching hospital, a reference center in the region and in the Unique Health System (SUS, abbreviation in Portuguese for Sistema Único de Saúde).

Study subjects were fifteen mothers and/or legal guardians of patients of ages between 0 and 18 years, hospitalized at the Surgical Units of the referred teaching hospital, who had their surgeries suspended in the period from April to December 2007. Mothers and/or guardians were chosen to as respondents because some patients that had their surgeries suspended were newborns and children who would be unable, due to their age, to answer the questions.

As a first step, the project was evaluated by the research Ethics Committee, according to the National Health Council Resolution 196/96. After being approved, as per document number 28/2007, data collection was initiated. With help from the Medical Information Center (CIMED, abbreviation in Portuguese for Centro de Informação Médica) and an information script, an investigation was performed to find the number of surgeries performed by the 12 specialties of the Surgery Department Technical Section, as well as the number of surgeries that were suspended and the main reasons for the cancellation, in addition to data that could characterize the study population.

After being notified by the surgery department that a pediatric surgery had been suspended, the researcher identified the patient and went to the hospitalization unit to perform the interview with the mother and/or legal guardian. The interviews were performed after the subject provided consent and signed the Free and Informed Consent Form, within 24 hours being notified about the surgery suspension. The semi-structured interviews were recorded on a cassette tape and then transcribed for further analysis, with the purpose of perceiving the feelings of the mothers and/or guardians regarding the situation of the surgery being suspended. To do this, the following guiding questions were used:

- Who informed/oriented you about the suspension of your child’s surgery?
- Did you receive information/orientation about the suspension of your child’s surgery?
- How did you feel regarding this situation?
- What would be the main problem for you and/or your child in view of this situation of the surgery being suspended?
- Is there anything else you would like to say?

METHODOLOGICAL FRAMEWORK
(BARDIN’S CONTENT ANALYSIS)

Considering that the material used is grounded on the dialogues developed through the interviews, and based on the premise that everything that is said or written can be
submitted to content analysis, thematic analysis was the technique chosen to perform the content analysis of the interviews given by the participants[30]. Content analysis is a method that consists of three stages: pre-analysis; material exploration; and results analysis, i.e. inference and interpretation.

In the pre-analysis stage, the researcher performs a brief reading, and activity in which occurs the first contact with the documents to be analyzed, and thus they have exhaustive contact with the material. After the brief reading, the researcher chooses the documents, thus comprising the corpus, group of documents considered to be submitted to the analytical procedures. This stage comprises a period of intuitions, but the objective is to make the initial ideas operational and systematize them, to conduct to an accurate scheme of the development of the following operations, as a plan of analysis. Also in this stage, it is possible to formulate hypotheses and objectives. As for the objectives, they are what guides the investigation or be established from this stage. The material explorations stage occurs immediately after the pre-analysis, and implies operations to code, number, classify and aggregate based on previously established rules. In this stage the material is coded, i.e., submitted to a process in which the gross data are systematically transformed into units, which according to the rules established by the coder, who will then classify them and aggregate them into categories.

The analysis of the results obtained and the interpretation is the stage in which the gross data are analyzed to become significant (speaking) and valid. The analyst, having significant and trustworthy results in hand can then propose inferences and make advanced interpretations regarding the expected objectives, or that concern other unexpected findings.

DATA ANALYSIS

Data regarding the data collection procedure of the study location

In 2007, the Surgery Department Technical Section of the studied teaching hospital performed a total of 7,405 surgical procedures, 4,666 of which were routine procedures, 1,794 urgencies and 945 emergencies. As for the suspension of surgeries a total 1,533 surgeries were registered, distributed among routines, urgencies and emergencies.

Of the 7,405 surgical procedures, 1,705 were pediatric surgical procedures, also with 296 suspended pediatric surgeries, elective, urgency and emergency. It is observed that 17.3% of the pediatric surgeries were suspended in this period. The suspensions occurred for several reasons, which included the following: patient did not appear for hospitalization: 47.3%; patient with an altered clinical situation: 26.3%; surgery team unavailable: 6.8%; passed the routine hour for surgery: 4.5%; change in medical conduct: 4.0%; suspension due to urgency/emergency: 3.7%; lack of preoperative preparation (fasting): 3.7%; other causes: 3.7%.

Patient characteristics

The group of patients, whose mothers and/or legal guardians were subjects of this study, were distributed into eleven male and four females, of ages between two months and seventeen years. Three patients were attending primary school, on was in high school, and eleven were not old enough to start school or preschool. The average length of stay of the hospitalizations according to the data of the Medical Information System was three days. Six patients had already been submitted to a previous surgical procedure, but none of them had experienced the suspension of a surgery unit the moment of the study.

Study subject characteristics

It was observed that in most cases, the subjects present at the moment when the news about suspending the surgery was given was the mother of the patient, with a total 13 mothers, one grandmother and on patient father, with ages between 21 and 65 years. Fourteen were women and six were men. As for their education, one had a technical level, seven had secondary level education, six had primary education and one was illiterate.

RESULTS AND DISCUSSION

Each interview took in average 20 minutes, from the first approach and the researcher introducing herself, to ending the interview and thanking the interviewee for his/her participation. In the data analysis the interviewee’s statements were used as the principal source of information to analyze the communication process in view of the situation of pediatric surgery suspension. First, the results were categorized based on the questions made to the study subjects, who were the mothers and/or legal guardians for the hospitalized children.

Question 1: Who informed/oriented you about the suspension of your child’s surgery? Two categories emerged after reading the material and grouping the answers to each question, considering that the answers were grouped based on the aforementioned thematic criterion.
1- Identification of the professional. Among all subjects, eight were able to identify who provided the information/orientation about the suspension, including the names of the surgeons:

It was his doctor, Dr. Y and the team who assisted us at the pediatric outpatient clinic (E7).

The fact that subjects identified the professional responsible for the information/orientation shows a closer attachment between the professional and the patient and mother and/or guardian. The attachment established between the health team and patients/relatives benefits the proposed treatment, because it strengthens bonds of security, trust and reliability.

2. Did not identify the professional. Seven subjects knew that they were informed about the suspensions by a doctor, but they were unable to give a name, and also could not identify if the doctor was a surgeon or anesthesiologist:

It was a doctor, I don’t know him. He wears glasses (E11).

Categories 1 and 2 both show that the nurse was not with the physician when the subjects were informed about the surgery suspension. Nurses always complete their tasks; mediate relationships, know and organize all technical issues, but do not have visibility; or, yet, the referred lack of visibility is due to the nurses’ distancing from the comprehensive care that should be provided to patients, as they prioritize administrative activities[13].

Although the professional attitude of nurses is not visible to the eyes of patients and their relatives, it was observed that nurses were the ones who encouraged the physicians to inform the mothers and/or guardians about their child’s surgery being suspended and provided the necessary condition for this moment to take place.

As health care professionals, we cannot disregard that our messages are interpreted not exclusively by what we say, but also by how we behave. Therefore, we can increase communication effectiveness by becoming aware about the importance of body language, particularly in terms of proximity, posture and eye contact[13].

Question 2: Did you receive information/orientation about the suspension of your child’s surgery? Four categories emerged from this question:

1. Improved clinical situation

They only said that he was doing fine and did not need the surgery (E1).

In this statement, it is observed that the mother and/or guardian does not have concise information about the real health condition of her child.

Some studies stress that parents need to understand their child’s situation and treatment, and, to continue providing care to that child, they need accurate and consistent information about the diagnosis, treatment and specific care their child requires, which is a cause for much worrying[5,8].

Adequate communication implies one that seeks to reduce conflicts and misunderstandings, and achieve specific objectives to solve the problems detected in the interaction with patients[13].

2. Due to other urgency and emergency surgeries

They explained that a baby had just been born and needed urgent surgery. That’s what they said (E5).

The mothers and/or guardians understand and accept the fact that the surgery of their child had to be suspended because of another more serious/urgent case, even if it was not explained to them with detail. We also observed that there is a feeling of empathy between patients and mothers and/or guardians. Even though they had waited months for the surgery, which occurs in many cases, they understand when someone in a more serious situation is at stake. There were no questionings, only understanding and acceptance.

A study on the same theme refers to a lack of control over the situation. The studied individuals expressed feelings of acceptance and powerlessness in view of the problem. The author defines acceptance as being a reflection of the relationship that the patient has with the health institution, and the hope that there may be some divine intervention[5].

3. Failure to provide orientations about procedures and preoperative appointments

I breastfed when I shouldn’t have. I was supposed to breastfeed only until three in the morning, and I lost track of time and fed the baby at five thirty in the morning and for this reason the surgery was suspended (E9).

We observed failures in the nursing team service, which often passes the responsibility of taking care of the child to their mother and/or guardian, knowing that there is a need to supervise that care, exchanging information and transmitting important orientations about the child’s state of health, and the hospital rules and norms.

The professionals’ everyday routine blocks their perception. To better interpret the patient’s verbal-gestural acts, health professionals must assume a position of an aware language producer as an element of transformation, interpreter of messages. The team has the duty to know the communication mechanisms that facilitate and improve the performance of their practice towards the patient, as well as to improve the relationship between team members[13].

4. Lack of information about the suspension of the surgery

They only said that it wouldn’t be possible and changed it to tomorrow, it was supposed to be early, then it wasn’t possible, so he changed it to nine o’clock but it actually happened at twelve, that’s all (E3).
Thinking about this category, it is realized that it would be incoherent with the communication process not to inform the mother and/or guardian about the reason for suspending their child’s surgery, in addition to breaking the legal right of every mother and/or guardian to know about everything that is happening or will happen to their child.

Therefore, the patient does not recognize their rights and does not question the interventions and orientations made by the team; always thinking that the service is excellent, and never stating their opinion. When patients do state their opinion, they are often not heard. A previous study noticed that the lack of attention from health professionals generated feelings of anger and abandonment, thus showing that the team does not assign the due importance to that which patient and family should know about the treatment. The study also points out that apparently the multiprofessional team does not effectively measure that fact and the importance of this event to the patient(5).

*Question 3: How did you feel regarding this situation?*

Four categories were found for question 3:

1. **A feeling of relief, divine providence and compassion**
   
   Relieved. I put the surgery in the hands of God and asked Him that if this was the best for him, for the surgery to be successful (E1).

   The feelings of acceptance and helplessness expressed by their silence are a reflection of the dependence that mothers and/or guardians have on the health institution, and of the hope for intervention from divine providence. Through this attitude, mothers and/or guardians often do not recognize their rights, nor seek solutions for their distress, as they believe they are receiving a favor. Reports as the stated above have also been found in a similar study(10).

2. **Worries about domestic and professional activities**
   
   No, because I understood, you know, that he needed it and not I need them to do it, right? It’s because I work and I need to get back to work (E7).

   We observed that most patients seen at the studied hospital are workers who need to support their families. For this and other reasons, these mothers and/or guardians were anxious to complete the treatment, as fast as possible, so they could return to their activities. It should also be emphasized that cancelling a surgery may not make a big difference for the professionals involved, but for the patient and their family, besides the emotional implications, it involves social aspects and their consequences, such as those observed in the statements above. The concerns with patients and their families are real and, for them, the most important thing is the solution to the problem.

3. **A feeling of guilt**
   
   I felt nervous, but I understood it was my fault because I breastfed the baby, so I just let it go (E9).

   The lack of orientation/information and of any feedback may cause anxiety, nervousness and a feeling of guilt. This situation would not occur if the communication between health professionals and patients and their mothers and/or guardians was effective.

   Man is constantly interacting with his environment and, for that, uses communication. It involves an array of phenomena, such as psychological and social elements that occur among people and within each, consider interpersonal, group, organization and mass contexts. Communicators, at all levels, handle signs and therefore affect themselves and others involved(13).

4. **Personal and emotional organization for surgery without an outcome**
   
   Ah, it’s hard because, like I say, we feel nervous! You prepare everything, she got up at five in the morning, took a bath, got apprehensive, and suddenly they tell us it won’t happen, we’ll have to do it all over again! I even got a headache. I’m in pain from a headache because of nervousness. I get really nervous (E12).

   For the surgery to happen changes were made to their life habits and personal organization on the day of the surgery, as this situation is considered of utmost importance to the patient and relatives. Hence, cancelling the surgery implied that the whole preparation and anxiety, and the trust that patients and relatives assigned to the health team and institution produced no outcome.

*Question 4: What would be the main problem for you and/or your child in view of this situation of the surgery being suspended?* One category was identified considering question 4:

1. **The wait from rescheduling the surgical procedure**
   
   The problem is if they don’t operate on him tomorrow, then we’ll have to schedule everything again, it will take long, and I guess that all of this, you know, is what will be the problem (E9).

   Because it is a teaching hospital, working with the Unique Health System (SUS), there are no comfortable accommodations for patients and their companions. Therefore, mothers and/or guardians had only a couch to sit in, at the side of the patient. They also had to share the bathroom and other facilities with other dozens of mothers and/or companions. It is observed that the whole process of hospitalization and waiting for surgery is extremely exhausting. There is also the preoccupation of leaving, in their hometown, a family, their job, and several activities.

*Question 5: Is there anything else you would like to say?* One category was identified considering this question:

1. **Impatience in view of the lack of information**
   
   I think there should be more responsibility, right, in this respect because it is not the first time that I almost lose
him, it’s the second time. I think we should speak to someone with more responsibility around here to talk, because my son could have died yesterday. Right (E10).

Through this statement we noticed that the mother and/or guardian was unhappy with the information provided by the resident doctor. This is justified by the fact that the institution is a teaching-hospital, where residents are responsible for many activities, under the supervision of the faculty. This situation can raise doubts in the communication, which increases anxiety and worries, causing dissatisfaction regarding the service provided by the institution.

Interpersonal communication occurs in the context of face-to-face interaction. The many aspects involved in this process include the attempts to understand the other communicator and to be understood. This process also includes the person’s perception, the chance of conflicts – which can be worsened or reduced through communication – and persuasion (inducing changes in values and behaviors)\(^{(13)}\).

**FINAL CONSIDERATIONS**

After the analysis and discussion of the data obtained in the study, it was observed that there are several implications and effects on pediatric patients and their mother/legal guardian when the surgery is suspended. Furthermore, the importance of an effective communication between the health team and patients/relatives was also observed.

We considered that the limitations of the present study referred to the fact that data collection concerned perceiving the feelings experienced by pediatric patients, but reported by their mothers/guardians, particularly when we followed the suspensions of surgeries in children in the age range between 10 and 18 years, who could report their experience themselves, when the focus of the study was only on the reports of mothers.

As the patients were children, in addition to the care needed in terms of the physiopathology of the disease and preoperative preparations, it was observed that the mothers and/or guardians also required care and attention, because they experienced anxiety and distress due to the wait for the surgical procedure and for solving the problem.

In this study we detected mothers and/or relatives receive incomplete and superficial information, which leave doubts and communication gaps, in addition to generating feelings such as anxiety, fear, insecurity and distress.

We observed that the mothers understood the reasons why the surgery was suspended when the health team explained and transmitted them clearly and with confidence, which showed interest towards the patient. We also noticed that feelings of empathy (towards other patients in more serious situations) and divine providence permeated the relatives’ statements.

We found that, in many moments, there were failures in the communication between the nursing teams, particularly the nurse, causing the suspension of surgeries due to a lack of orientations that could have been transmitted during the preoperative nursing visitations. We believe it is necessary to implement the Perioperative Nursing Service Systematization to improve the attachment between the surgery department nursing team and the patients and their relatives, as well as with the nursing team from the hospitalization unit, with the purpose to improve the service, promote humanization and meet the needs of those involved.

It was observed that the suspension of pediatric surgeries is something common for health care professionals who do not calculate the effects on patients, relatives and on the institution.

As for the hospital costs and expenses generated by surgery suspension, it was observed there was a high rate of pediatric surgery suspension, causing a waste of sterilized material, having the involved specialized personnel redo work, i.e. preparing the surgery room and performing the sterilization process, in addition to losing an opportunity of including another patient, despite the fact there is high demand for surgeries and few open schedules.

Considering the information presented herein, it should be highlighted that we noticed an invisibility regarding nurses in important moments of the perioperative period, especially in view of the suspension of a surgery, showing a lack of positioning and alienation towards the real needs of the family at that moment. We believe that interpersonal communication by means of information and orientation is inherent to care, and should be made coherently evident in the nurses’ everyday activities and thus be recognized by patients, their relatives, and by the health team.

**REFERENCES**

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