Parental experiences and satisfaction of their child`s hospital admission undergoing surgery at the department for pediatric surgery in the University hospital of Split

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Diploma thesis

Academic year:
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TABLE OF CONTENTS

LIST OF ABBREVIATIONS

CRC – Convention on the Rights of the Child

FCC – Family centered care

ICU – Intensive care unit

MDT – Multidisciplinary team

PTSD – Post-traumatic stress disorder

PTSS – Post-traumatic stress symptoms

UN – United Nations

WHO – World health organization

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1. INTRODUCTION

To provide the highest quality of health care possible should always be a goal for any health care facility. Particularly for the pediatric population, parent involvement in the medical management of their child is an essential pillar in order to provide this patient group with satisfactory care.

1.1. The rights of the hospitalized child

The United Nations (UN) Convention on the Rights of the Child (CRC) is well recognized by most countries as a set of rights of children around the world. Particularly article 24 is addressing the rights of hospitalized children, and states that health care in children should be of the highest attainable quality as possible (1). The CRC acts as a guide for countries and different sectors in society on how to approach children in order to set them up for success. It is vital to apply the CRC in health care in order for the child`s experience for hospitalization to be satisfactory and with at least trauma as possible (2).

In 2012, the World Health Organization (WHO) published a manual named "Children`s Rights in the Hospital: Manual and Tools for assessment and improvement", which should function as a check list to make it easier for institutions to be aware of how well the CRC principles are being applied in clinical practice. The manual consists of seven assessment checklists that address important aspects of pediatric health care (3). The seven standards in the manual include:

1. Quality services for children;
2. Equality and non-discrimination;
3. Play and Learning;
4. Information and participation;
5. Safety and environment;
6. Protection;
7. Pain management and palliative care.

Table 1 describes in further detail which assessments that should be done for each standard (2).

Table 1. Description and aim of the standards, Manual and Tools for the assessment and improvement of children's rights in hospitals (2012).

Standard	Description	Aim
1	Quality services for children	To assess: - adoption of evidence-based clinical guidelines; - monitoring and evaluation activities; - adoption of a Charter on Children's Rights in Hospital; parents'/caregivers' right to accompany their child at all times during hospitalization; and - provision of adolescent-friendly health services.
2	Equality and non-discrimination	To assess: - rights of accessibility and acceptability; - delivery of patient-centered care that recognizes the child's individuality, diverse circumstances, and needs; - right to privacy.
3	Play and learning	To assess: - adoption and implementation of play and learning activities; and - whether children's views are taken into account in the planning and improvement of playrooms/play spaces.
4	Information and participation	To assess: - policies and practices on right to information and participation in children's own care and in the development of services.
5	Safety and environment	To assess: - friendliness, safety, cleanliness, and appropriateness of hospital infrastructures; and - right to food.
6	Protection	To assess: - the existence and implementation of a child protection system within the hospital; and - existing regulations on clinical research and trials.
7	Pain management and palliative care	To assess: - the appropriateness and effectiveness of pain management and palliative care services.

Source: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5070694/

The right of the child to have a voice in their own health care is today also more recognized, however a fine balance exists between necessary protection from the hospitalization and treatment process that may be vital in certain situations and the inclusion in decision-making that also may be viewed as according to the rights of the child (4–6).

1.2. The effects of hospitalization on the child

During hospitalization, children will face several difficulties that they would not otherwise do, including being exposed to new environments, possible painful procedures, as well as emotions of confusion and fright (7). Undergoing a surgical procedure may be particularly fearful as concerns regarding pain, having to undergo anesthesia, being separated from their parents and more exist (8). This may lead to short term and long term lasting effects, particularly behavior and emotional disturbances (9). The psychological burden of hospitalization has frequently been described in literature.

A review done in 1994 of the research on the psychological response of children to hospitalization found that frequently hospitalized children were at increased risk for difficulties with behavior, as well as in school, with reading difficulties, and even eventually having an increased risk for difficulties in the workplace later in life (9). Post-traumatic stress symptoms (PTSS) have also been found to be higher in children who have experienced an acute medical event such as being admitted to the intensive care unit (ICU) (10), and in a meta- analysis of the variables associated with post-traumatic stress disorder (PTSD) development in youths, 19% of children with injuries and 12% of children with illnesses were found to develop lasting PTSS (11).

1.2.1. Anxiety in previously hospitalized children

Increased anxiety levels in hospitalized children has frequently been described in literature, but it is unclear whether or not anxiety levels are increased long term in in this group. According to an integrative review of literature regarding anxiety in hospitalized children done in 2012, among the most common psychological responses to hospitalization is anxiety and fear (12). Furthermore, this may contribute to rise in pain level as well as a negative outcome for the children. Preoperative anxiety is associated with poorer postoperative outcomes (8, 13, 14).

Overall, anxiety is thought to be the most common and severe negative response to hospitalization (15).

A study conducted in 2019 assessing strengths and fragilities of hospitalized children showed that state anxiety (the "temporary emotional condition characterized by apprehension, tension, and fear about a particular situation or activity" (16)) was increased in hospitalized children compared to non-hospitalized, but no significant difference was found between the groups when it comes to trait anxiety (the "general tendency to exhibit anxiety" (17)). Furthermore, the increase in state anxiety is thought to decrease post discharge (18). The level of trait anxiety in the child has been shown to be the main predictor of the state anxiety experienced during hospitalization (18, 19).

1.2.2. Individual factors that affect how children react to hospitalization

Children are heterogeneous individuals and thus their ability to cope with stressful situations such as hospitalization greatly varies. Children that are more vulnerable to adverse outcomes subsequent to hospitalization includes those who are more dependent on their mothers and those experiencing increased stress at home. Children with an increased temperament also belongs to this group. There is also an association between temperament and perioperative anxiety (8). The individual variable that is thought to be most the most influential on children's reaction to hospitalization is age (9). Younger children, particularly in the age group six months to four years is thought to be most vulnerable. Additional challenges may also arise in the pediatric group of teens, including hardships with coping with feelings of loss of control and independence (20). Personal control has shown to be of key importance when it comes to emotional well-being (21). Being in a higher socio-economic class may increase the upset in the hospitalized child. Intelligence its thought to positively affect the ability of the child to cope with hospitalization (9).

1.2.3. Hospital factors that affect how children react to hospitalization

Factors that negatively affect the lasting effects on the child after hospitalization includes prolonged and frequent hospitalizations (9, 22). The procedures that the child is exposed to will also effect the reaction of the child, and surgical procedures are described as being one of the most distressing events (23).

Play is considered a coping mechanism for the child during hospitalization (24, 25). Play interventions in the hospital has been shown to reduce anxiety and negative emotions in the pediatric group (23, 26). Hospital staff, particularly nurses can ease the process of hospitalization for the child (27). Being accompanied by a parent is proven to positively influence the child`s experience of hospitalization, as well as outcome (9). Introducing the child and parents to a multidisciplinary team (MDT) has also been shown to be advantageous over no MDT, for instance as seen in children with chronic kidney disease (28).

1.3. Parent participation in child`s health care

It is generally accepted that families of an ill child largely wish to have involvement in the hospitalization of their child (29–31). In modern pediatric medicine, parent participation is regarded as fundamental when it comes to care of the hospitalized child (32, 33). The degree of parent participation, as well as its effectiveness varies with the different health care institutions, as well as the level of which the health care institution facilitates parent participation.

1.3.1. Definition of parent participation

According to a 2014 study, the best definition for the concept of parent participation in care of their hospitalized child is the: “mutual relationship and gaining parents’ trust toward nurses, giving the required information and education to the parents about care and treatment process, assigning the needed home care to the parents, involving the parents in caregiving process, and finally, defining their participation in decision making (clarifying the parents’ role) in order to improve the quality of care given to the children” (33)

1.3.2. Evolution of parent participation with time

In 1802 the world's first pediatric hospital was founded in Paris, the L'Hopital Des Enfants-Malades, and over half a decade later, there was the appearance of first children's hospital in the US (34). Early pediatric care has been described as nurses caring for the needs of the children, emotional as well as medical, and parents being uninvolved. Throughout the 19th and mid-20th century it was common practice for the parents to hand over the responsibility for their sick child to the medical staff. Difficulties including the world wars and the fight against infection contributed to exclusion of parents in the care of pediatric patients. The children were often hospitalized for long periods of time, with little attention given to the sometimes detrimental psychological effects caused by their hospitalization. After World War II, more studies were conducted on the psychological impact of hospitalization on children, particularly trauma connected to the separation of children from their parents. This, together with modernization of medicine and the introduction of antibiotics, slowly impacted the ways parents were regarded in relation to participation in the hospital setting, and by the 1970`s there was a somewhat change, although slow, towards more parental involvement (30, 35).

The nature of the participation of parents has evolved since then. It became common practice for parents to be allowed to stay with their child, frequently all day for the youngest population. Studies conducted in facilities where parental participation was practiced prior to 1994 found that parents wanted to take part in activities surrounding the basic needs of the child, the type of activities that would normally be performed at home such as bathing, feeding and giving emotional support. In more recent years, there has been a tendency for parent participation to a larger degree also involve more technical tasks including monitoring and coordination roles(32, 36, 37). There is still however, and understandably so, a pattern that parents in general wish to leave most clinical care to the health professional (38). The level of parent participation varies around the world, and the Department of Pediatric surgery in Split has partially enabled the accommodation of parents of children since 2001 when the department moved its premises. In the last 4-5 years the stay of children in this department has increased (with the last two years as an exception due to the COVID-19 pandemic).

1.3.3. The effect of socioeconomic and cultural differences on parental participation

Most literature regarding parent participation in regard to health care is based on the western world. A study conducted on Mozambican families in 2008 suggested that families with low socioeconomic status has the same desire to be involved in the care of their child, as those families from Western and Eastern countries (29). In general, families of an ill child largely wish to have involvement in the hospitalization of their child, regardless of geographic localization and the level of socioeconomic status. Variations in factors like socioeconomic status is however, seen to influence the various difficulties that the families face, such as the level of understanding, as well as expectations and experience of the health care (29, 36).

1.3.4 The benefits of parent participation

Parents universally believe that their participation in the care of their child is beneficial to their child, this belief is largely shared by health providers as well (36). Several studies suggest that parent participation is beneficial both to the hospitalized child, as well as their parents. A review from 2021 including studies of unaccompanied hospitalized children suggest that these children have significantly higher levels of distress due to their state of being unaccompanied by a parent (39) Additionally it has been described in literature that increased parent participation in the hospital setting is associated with decreased levels of distress of the hospitalized child (32). In some instances, parents have also reported that in their subjective opinion, their participation has led to pain reduction for their child (32, 33, 40). Furthermore, it has been suggested that parent anxiety and stress level is reduced if the parent stays with their child (29, 41, 42). In general, increased levels of parent participation are associated with better outcomes for the child, both during hospitalization and post discharge (40, 43).

Parent participation has also shown to be of possible economic benefit to the hospital, particularly when performed effectively (44), and several studies have shown that when parents stay with their child in hospital the duration of the hospitalization is reduced (45).

1.3.5. The opinions of nurses regarding parent participation

In modern medicine philosophy, parent participation is an expectation from the families as well as the health care providers. Parent participation is implemented in most health care facilities today, and because of its apparent beneficence, it is favorable that nurses have a positive attitude regarding this sort of practice. Many studies have been conducted that show that nurses in general value parent participation (31). However, there are also studies that show nurses with conflicting opinions. The causes of negative views about such practice roots in factors such as nurses perceiving the practice of parent participation as an additional workload for them, bringing about extra stress, as well as difficulty handling a possible power struggle, and feeling of failure of negotiation with the parents (31, 46). Some factors have been identified that increase the likelihood of a positive attitude among the nurses towards parent participation, and they include higher education level, having a more senior work position, being married and also if the nurses are parents themselves (31, 47).

1.3.6. Family centered care (FCC)

With the evolution and modernization of medicine, and the development of parent participation as common practice, the term Family centered care (FCC) has been made apparent the last 15 years. Terms including care-by-parent, patient- focused care and parental participation can be thought of as precursors to FCC (35). There are several different existing definitions and descriptions of FCC, however they are often described as abstract and conceptualized (48). FCC can be defined as “a partnership approach to health care decision-making between the family and health care provider” (34). FCC in pediatrics has been described as “based on the understanding that the family is the child's primary source of strength and support and that the child's and family's perspectives and information are important in clinical decision making” (49). The Institute for patient and family- centered care describes the following core concepts of FCC: Dignity and respect, information sharing, participation and collaboration (50). Difficulties have been seen among health care facilities when it comes to defining specific implementations to achieve these concepts.

Although having parents present in the hospital is an inevitable part of FCC, it has been described in literature that there is a common misconception among clinicians that in order to provide adequate FCC, parents must be present in the hospital 24 hours a day. In fact, an

important concept of FCC is recognizing that what is needed by one family is not necessarily what is needed by another, and therefore one cannot define a set of interventions that must be in place for all families, and for example the hours of family involvement should be presented as a choice, with attempt to finding the correct level for that particular family (49).

1.4. The expectations and difficulties of parents of the hospitalized child

During the hospitalizing of a child, parents will face several difficulties. These difficulties may vary, depending on a lot of factors including the severity of the child`s diagnosis, coping strategies of parents and facilitation of the health care system.
Some common expectations and needs of parents that are generally shared have been identified, and can be used by the health care providers in order to provide families with better care. In addition, parent dissatisfaction increases when there are larger gaps between the parent's expectations for their participation in care and the degree of their actual involvement, making identifying the needs of a parent of utmost importance when it comes to providing care that is of their satisfaction (32).

1.4.1. The expectations and needs of parents during hospitalization of their child

As described above, parents commonly have the expectation to participate in the basic needs of their child, and to be able to be involved in the care of their sick child. Other factors that are commonly shared between parents as expectations in meeting with hospital staff is receiving proper information (41) and to be provided with an adequate level of communication (36). Trust has been shown to be essential for the parents, and this perspective is also shared by the staff (51). Receiving emotional support to a certain level has also been described as a common necessity among parents. Other expectations include being given time and attentiveness, as well as the expectation that their child will receive safe and proper treatment. Families with a lower socioeconomic status more commonly do not want to take part in the decision-making part of their child's treatment, which may be coupled with the increased levels of difficulty understanding provided information (29).

1.4.2. The difficulties of parents during hospitalization of their child

Similar to expectations, difficulties faced by families varies, however common obstacles that are frequently shared includes perception of receiving insufficient understandable information (36) and having to rearrange their daily routine to be involved in their child`s care, particularly having to consider their working schedule and balancing their parenting role if they have several children and financial concerns (36, 52). Many parents are also finding themselves struggling with defining their role as parent in the hospital setting, underlying the importance of a clear communication between parents and health care providers in this regard (41, 53, 54). It is also common for parents to perceive the health care facilities as inadequate, including sleeping, catering and hygiene facilities, although this may vary greatly within populations (36). Some studies have found that the anxiety levels of relatives are inversely proportional to the levels of education and social class (45) .

A unique hurdle for the parents of infant patients is difficulty with parent-infant bonding, which may also take an additional toll on the parents (41). The experience of anticipatory grief may also occur, particularly for parents of patients with a more serious diagnosis, as seen in parents of children with congenital heart disease (41).

Increased severity of diagnosis of the hospitalized child also negatively effects the psychological status of parents. For instance, parents of children undergoing cardiac surgery is at high risk of psychological problems, with higher rates of PTSD, psychological distress, anxiety and depression than the general population (41).

2. OBJECTIVES

2.1 Aims

The aim of this study was to determine the parental experiences and satisfaction of their child`s hospital admission at the Department of Pediatric surgery at the University Hospital of Split. The aim can be further subdivided into primary and secondary objectives.

2.1.1 Primary objectives

1. To determine the satisfaction of the parents that stayed with the child in the hospital with regard to the type of accommodation they stayed in;

2. To determine the satisfaction of the parents that stayed with the child in the hospital with regard to the payment and price of accommodation or non-payment of accommodation;

3. To determine the satisfaction of the parents that stayed with the child in the hospital with regard to whether it is the first, repeated, short-term or long-term hospital stay, and whether it is a child with special needs;

4. To determine the subjective assessment of the parents that stayed with the child about the stress level of the child during hospitalization with regard to the type of accommodation they stayed in.

5. To determine the level of parental involvement in treatment and decision-making procedures during hospitalization, with regard to parental expectations, preferences, actual experiences and decision-making experiences in the treatment of their child.

2.1.2 Secondary objectives

1. To determine the opinion of the parents about the need for a 24-hour stay with their hospitalized child, and up to what age of the child that parents should be allowed such stay;

2. To determine the satisfaction of the parents with the staff of the Department of Pediatric surgery at the University Hospital of Split (doctors and nurses);

3. To determine the satisfaction of the parents with the hygienic conditions at the Department of Pediatric surgery at the University Hospital of Split;

4. To determine the satisfaction of the parents with the meals for the child and themselves on the Department of Pediatric surgery at the University Hospital of Split;

5. To determine the opinion of the parents who paid for the accommodation on the amount of the accommodation price.

2.2 Hypothesis

Considering the primary objectives, the hypothesis includes the following:

1. That the satisfaction of the parents will be greater the more time the parents were able to stay with the child;

2. That the expectations of parents who paid for hospital accommodation are higher, and therefore satisfaction with the service lower, compared to those who did not pay for accommodation;

3. That the satisfaction of parents will be greater the longer the child stays in the hospital, if the child had repeated hospitalizations, and if the child has special needs;

4. That the child`s stress level will be lower in cases where the parents are allowed a longer stay in the hospital;

5. That regarding the involvement of parents in treatment and decision-making procedures, in terms of expectations and preferences for involvement in treatment procedures, expectations are less than the involvement in decision-making on their child`s treatment;

3. SUBJECTS AND METHODS

3.1 Respondents

This study was conducted from January 2022 to May 2022 at the Department of Pediatric surgery, University Hospital of Split in Croatia.
Inclusion Criteria: 76 parents of both genders, who were parents of children admitted to the Department of Pediatric surgery, University hospital of Split.

3.2 Type of study

Single-center cross-sectional study.

3.3. Place of study

Study was conducted at the Department of Pediatric surgery, University Hospital of Split in Croatia.

3.4 Survey questionnaire

The survey questionnaire was compiled at the Department of Pediatric Surgery, University Hospital Split after reviewing the available literature. The questionnaire consists of a total of 25 questions.

3.5 Study design and data collection

Data collection was performed at the Pediatric Surgery Department in Split-Dalmatia County in the period of January 2022 to the end of May 2022. The questionnaire was given in paper form by the nurses at the Department of Pediatric surgery, and was filled out by parents of children admitted there, and was then collected. It was anonymous and voluntary. It was given in Croatian language to the parents, and the questionnaire was then translated to English for the purpose of this paper. Before completing the surveys, the purpose of the research was explained to all participants and informed consent was obtained.

Included in the questionnaire were questions regarding basic information about the parents and child, as well as expectations and level of satisfaction of the parents regarding the accommodation, quality of care, hygiene and their own involvement, as well as questions

regarding parents` attitudes concerning up to what age of the child parents should be allowed to stay in the hospital along with them.

The questionnaire can be found in the *supplement* part of this paper.

3.6 Primary outcome measure

Primary outcome measures were expectations and level of satisfaction of the parents regarding the accommodation and medical care, subjective assessment about their child stress level and about their own involvement in treatment and decision making during hospitalization.

3.7 Secondary outcome measure

Secondary outcome measures included the attitudes concerning up to what age of the child parents should be allowed to stay in the hospital along with them, satisfaction of the parents with the medical staff and hygienic condition at the Department of Pediatric Surgery at the University Hospital of Split.

3.8 Compliance with ethical standards

All procedures performed in studies involving human participants were in accordance with ethical standards of the institution and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Authors declared that the research was conducted according to the principles of the World Medical Association Declaration of Helsinki “Ethical Principles for Medical Research Involving Human Subjects”. Patients were informed in detail and informed consent was obtained from the parents or legal guardians of the patients to use the data.

4. RESULTS

4.1 Demographic data

In total 76 parents were interviewed, of these the vast majority, were mothers accompanying their child 64 (84%). Fathers accompanied their children in 5 (7%) of cases, and both parents accompanied their children during hospitalization in 7 (9%) of cases **(Figure 1)**.

63 (84%) of the children were younger than 7 years old, and the different age groups of the children in this study can be found in **Figure 2**.

A total number of 38 of the parents stayed with their child in a 24-hour stay, 32 (42.11%) stayed with the possibility of staying the full day, but not overnight, and 5 (6.58%) only had the possibility for shorter visits **(Figure 3)**.

Overall, 58 (76.31%) of the patients spent 5 days or less being hospitalized, the frequency of the number of days spent in the hospital by the children of parents in this study is displayed in **Figure 4.**

Over half, 46 (60.53%) of the parents came to the hospital with their child for the first time, 19 (25%) were at the hospital with their child for the second time, and 11 (14.47%) were there for the third time or more **(Figure 5)**

Of the group, 7 children had special needs. In total, 4 parents payed for their accommodation in the hospital. On a scale from 1 to 5, the median overall level of satisfaction among all parents was 5.

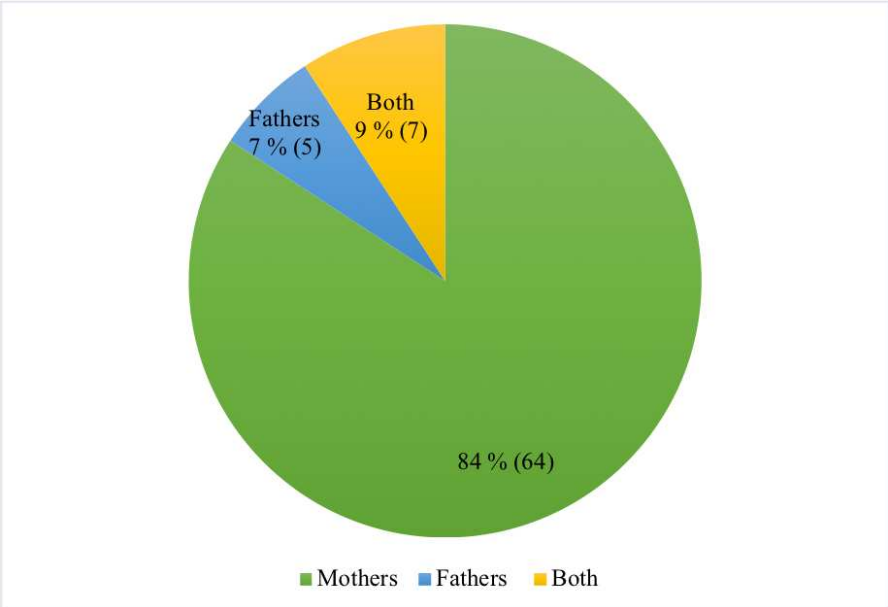

Figure 1. Frequency of the type of parent who accompanied child to the hospital.

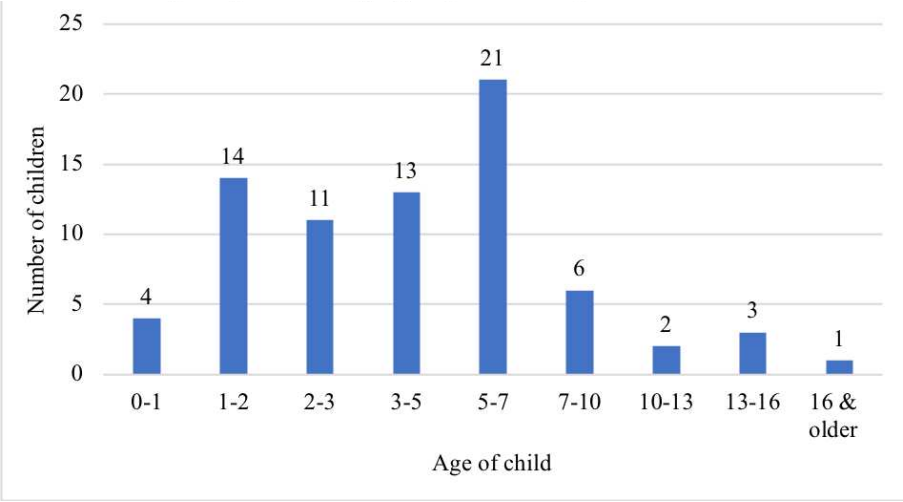

Figure 2. The frequency of each age group of the hospitalized children.

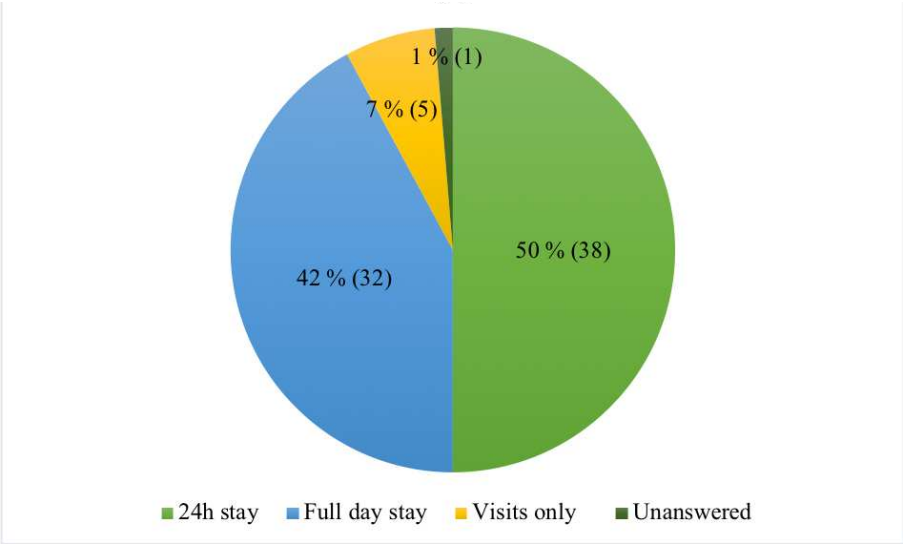

Figure 3. The frequency of parents using the different types of hospital accommodation.

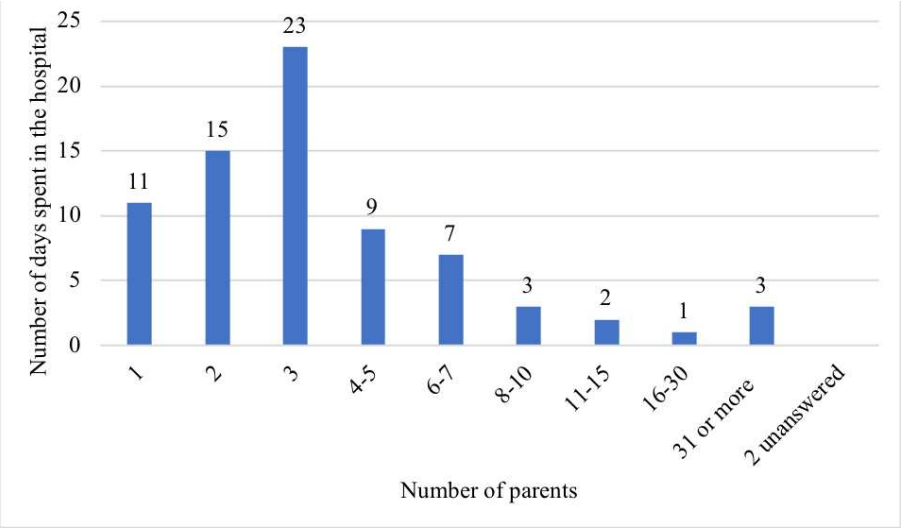

Figure 4. The frequency of the number of days spent in the hospital.

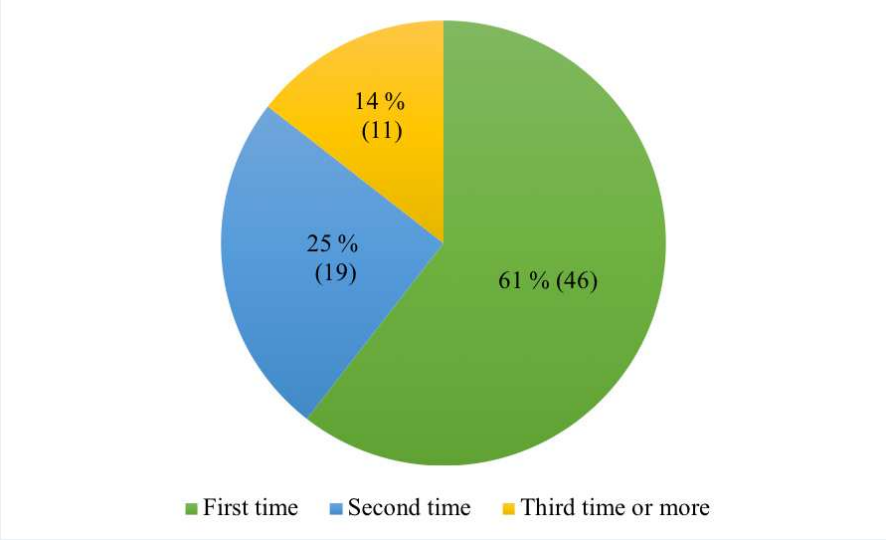

Figure 5. The number of times the parent had accompanied their child for their child`s hospitalization.

Objective 1: To determine the satisfaction of the parents that stayed with the child in the hospital with regard to the type of accommodation they stayed in;

To determine the satisfaction of the parents, 3 parameters were taken into account:

1. How was the accommodation;
2. How was the satisfaction with the professional level of health care;
3. What was the overall level of satisfaction?

Table 2. Parental satisfaction with accommodation depending on the type of accommodation.

Type of accommo-dation / Satisfaction	As expected n (%)	Above expectations n (%)	Below expectations n (%)	Blank n (%)	P*
24 hour stay	24 (63.16)	11 (28.95)	3 (7.89)	0 (0)	
Full day stay	21 (65.63)	9 (28.13)	0 (0)	2 (6.25)	0.44
Visits only	4 (80)	0 (0)	0 (0)	1 (20)	

* Fisher-Freeman-Halton test

The satisfaction of the parents was closely similar in all 3 groups. The majority in each group found the accommodation to be expected. No (0%) parent in the visits only group found the accommodation to be above their expectations, as opposed to 11 (28.95%) and 9 (28.13%) in the 24 hour and full day stay groups, respectively.

Using Fisher-Freeman-Halton test, we checked the plausibility of hypothesis H1 stating that the proportions of the parental satisfaction levels are higher across the types of accommodation that give the parents more time with their children. Given that the p-value of Fisher-Freeman-Halton test was $0.44>0.05$, we failed to reject the null hypothesis H1. Therefore, no statistically significant association was found between parental satisfaction with accommodation and type of accommodation.

Table 3. Satisfaction with the professional level of health care provided to their children according to the type of accommodation.

Type of accommodation	Satisfaction	Yes[a] n (%)	No[b] n (%)	Blank n (%)	P*
24 hour stay		38 (100)	0 (0)	0 (0)	
Full day stay		31 (96.88)	0 (0)	1 (3.13)	0.07
Visits only		4 (80)	1 (20)	0 (0)	

*Fisher-Freeman-Halton test
[a] Yes, I was satisfied with the professional level of health care.
[b] No, I was not satisfied with the professional level of health care.

When it comes to the question of whether or not the parent is satisfied with the professional level of health care, the majority answered yes for all groups, but the group with only visits had 1 (20%) answer rate or no (represents the only person of all 76 to answer no).

Using Fisher-Freeman-Halton test, we checked the plausibility of hypothesis H1 stating that the proportions of the parental satisfaction are higher across the types of accommodation that give the parents more time with their children. Given that the p-value of Fisher-Freeman-Halton test was 0.07>0.05, we failed to reject the null hypothesis H1. Therefore, no statistically significant association was found between parental satisfaction with the professional level of health care and type of accommodation.

Table 4. Overall satisfaction depending on the type of accommodation. *The numbers represent the percentage and the absolute number of people in each group who entered the number on a scale from 1(worst)-5(best).*

Type of accommodation	Satisfaction	1 n (%)	2 n (%)	3 n (%)	4 n (%)	5 n (%)	Median 1-5	P*
24 hour stay		0 (0)	0 (0)	2 (5.26)	11 (28.95)	25 (65.79)	5	
Full day stay		0 (0)	0 (0)	2 (6.25)	6 (18.75)	24 (75)	5	0.27
Visits only		0 (0)	0 (0)	0 (0)	0 (0)	5 (100)	5	

*Kruskal-Wallis test

The median satisfaction in all groups when divided according to type of stay was 5, on a scale of 1-5.

Using Kruskal-Wallis test, we checked the plausibility of hypothesis H1 the proportions of the parental satisfaction are higher across the types of accommodation that give the parents more time with their children. Given that the p-value of the Kruskal-Wallis test was 0.27>0.05, we failed to reject the null hypothesis H1. Therefore, no statistically significant difference was found in overall parental satisfaction between the different types of accommodation.

Objective 2: To determine the satisfaction of the parents with the stay with the child in the hospital with regard to the payment of accommodation or non-payment of accommodation

Table 5. The level of satisfaction with accommodation of parents divided into payers and non-payers.

How was the accommodation?	Payers n (%)	Non-payers n (%)	P*
As expected	3 (75)	47 (65.28)	0.15
Above my expectations	0 (0)	20 (27.78)	
Below my expectations	1 (25)	2 (2.78)	
Blank	0 (0)	3 (4.17)	
Total	4 (100)	72 (100)	

*Fisher-Freeman-Halton test

In the group of paying parents 3 (75%) found the accommodation to be as expected, and 1 (25%) found it to be above their expectations. In the non-paying group, 47 (65.28%) found the accommodation to be as expected, 20 (27.78%) found it to be above their expectations, and 2 (2.78%) answered that they found the accommodation to be below their expectations.

Using Fisher-Freeman-Halton test, we checked the plausibility of hypothesis H2 stating that the proportions of the parental satisfaction levels are lower in parents who pay for accommodation than non-paying parents. Given that the p-value of Fisher-Freeman-Halton test was 0.15>0.05, we failed to reject the null hypothesis H2. Therefore, no statistically significant association was found between parental satisfaction of accommodation and payment of accommodation.

Table 6. The satisfaction with the professional level of health care divided into payers and non-payers.

Satisfaction with the professional level of health care?	Payers n (%)	Non-payers n (%)	P*
Yes	4 (100)	70 (97.22)	
No	0 (0)	´1 (1.38)	
Blank	0 (0)	1 (1.38)	0.95
Total	4 (100)	72 (100)	

*Fisher's exact test

In the group of paying parents, there were 4 (100%) parents who answered that they were satisfied with the professional level of health care provided to their children, and this was true for 70 (97.22%) of non-paying parents.

Using Fisher's exact test, we checked the plausibility of hypothesis H2 that the proportions of the parental satisfaction levels are lower in parents who pay for accommodation than non-paying parents. Given that the p-value of Fisher's exact test was 0.95>0.05, we failed to reject the null hypothesis H2. Therefore, no statistically significant association was found between parental satisfaction with the professional level of health care and payment of accommodation or non-payment of accommodation.

Table 7. The level of overall satisfaction of parents divided into paying and non-paying parents.

Level of overall satisfaction from 1-5	Paying parents n (%)	Non-paying parents n (%)	P*
1	0 (0)	0 (0)	
2	0 (0)	0 (0)	
3	0 (0)	4 (5.56)	0.84
4	1 (25)	16 (22.22)	
5	3 (75)	52 (72.22)	
Median	5	5	

*Mann-Whitney U test

The median overall satisfaction of both paying and non-paying parents was 5 on a scale on 1-5.

Using the Mann-Whitney U test, we checked the plausibility of hypothesis H2 stating that the proportions of the parental satisfaction levels are lower in parents who pay for accommodation than non-paying parents. Given that the p-value of the Mann-Whitney U test was 0.84>0.05, we failed to reject the null hypothesis H2. Therefore, there is no statistically significant difference was found in overall parental satisfaction with regard to the payment of accommodation or non-payment of accommodation.

Objective 3: Satisfaction among parents according to the number of hospitalizations, length of stay and special needs.

Objective 3A – Satisfaction among parents according to the number of hospitalizations

Table 8. The level satisfaction of parents according to the number of hospitalizations

Level of satisfaction	First time hospitalization n (%)	Second time hospitalization n (%)	Third or more hospitalization n (%)	P*
As expected	32 (69.57)	15 (78.95)	3 (27.27)	
Above my expectations	10 (21.74)	3 (15.79)	7 (63.64)	
Below my expectations	2 (4.35)	´1 (5.26)	0 (0)	0.03
Blank	2 (4.35)	0 (0)	1 (9.10)	
Total	46 (100)	19 (100)	11 (100)	

*Fisher-Freeman-Halton test

In the group with 3 or more hospitalizations, the majority 7 (63.64%) experienced the accommodation as being above their expectations, which is different from the two other groups, as the majority; 32 (69.57) and 15 (78.95%) respectively, in these groups experienced the accommodation as being as expected.

Using Fisher-Freeman-Halton test, we checked the plausibility of hypothesis H3a stating that the proportions of the parental satisfaction levels are higher with repeated hospitalizations. Given that the p-value of Fisher-Freeman-Halton test was $0.03<0.05$, we reject the null hypothesis H3. Therefore, there is statistically significant association between parental satisfaction with accommodation and increased number of hospitalizations.

Table 9. The satisfaction with the professional level of health care provided to their child according to the number of hospitalizations.

Satisfaction with the professional level of health care?	First time hospitalization n (%)	Second time hospitalization n (%)	Third or more hospitalization n (%)	P*
Yes	45 (97.83)	18 (94.74)	11 (100)	
No	0 (0)	1 (5.26)	0 (0)	
Blank	1 (2.17)	0 (0)	0 (0)	0.4
Total	46 (100)	19 (100)	11 (100)	

*Fisher-Freeman-Halton test

All 3 groups have a high proportion of parents answering that they were satisfied with the professional level of health care that they received. The highest proportion is found in the group with at least 3 hospitalizations where 11 (100%) answered this, compared to 45 (97.74%) and 18 (94.74) in the first time and second time hospitalization group, respectively.

Using Fisher-Freeman-Halton test, we checked the plausibility of hypothesis H3a stating that the proportions of the parental satisfaction levels are higher with repeated hospitalizations. Given that the p-value of Fisher-Freeman-Halton test was 0.4>0.05, we failed to reject the null hypothesis H8. Therefore, no statistically significant association was found between parental satisfaction with the professional level of health care and number of hospitalizations.

Table 10. The level of overall satisfaction on a scale from 1(worst)-5(best) of parents according to the number of hospitalizations

Level of overall satisfaction from 1-5	First time hospitalization n (%)	Second time hospitalization n (%)	Third or more hospitalization n (%)	P*
1	0 (0)	0 (0)	0 (0)	
2	0 (0)	0 (0)	0 (0)	
3	3 (6.52)	0 (0)	1 (9.10)	0.96
4	9 (19.57)	6 (31.58)	2 (18.18)	
5	34 (73.91)	13 (68.42)	8 (72.73)	
Median	5	5	5	

*Kruskal-Wallis test

Overall satisfaction was high in all groups, in the group of parents with first time hospitalization, 34 (73.91%) answered 5 on a scale of 1-5, 9 (19.57%) answered 4 and 3 (6.52%) answered 3. In the second time hospitalizations group 13 (68.42%) answered 5 and 6 (31.58%) answered 4. In the group of 3 or more hospitalizations 8 (72.73%) answered 5, 2 (18.18%) answered 4 and 1 (9.10%) parent answered 3.

Using the Kruskal-Wallis test, we checked the plausibility of hypothesis H3a stating that the proportions of the parental satisfaction levels are higher with repeated hospitalizations. Given that the p-value of the Kruskal-Wallis test was 0.96>0.05, we failed to reject the null hypothesis H9. Therefore, no statistically significant difference was found in overall parental satisfaction with regard to the number of hospitalizations.

3 B – Satisfaction among parents according to the length of stay in the hospital

Table 11. The level of satisfaction of parents of the accommodation according to the length of stay in the hospital.

Level of satisfaction	1-2 days n (%)	3-5 days n (%)	6-10 days n (%)	11 or more n (%)	P*
As expected	18 (69.23)	20 (62.5)	6 (60)	4 (66.67)	
Above my expectations	7 (26,92)	9 (28.13)	3 (30)	1 (16.67)	
Below my expectations	0 (0)	2 (6.25)	1 (10)	0 (0)	0.82
Blank	1 (3.85)	1 (3.13)	0 (0)	1 (16.67)	
Total	26 (100)	32 (100)	10 (100)	6 (100)	

*Fisher-Freeman-Halton test

The majority in every group found the accommodation to be as expected; 18 (69.23%) in the 1-2 days group, 20 (62.5%) in the 3-5 days group, 6 (60%) in the 6-10 days group, and 4 (66.67%) in the group with 11 or more days spent in the hospital.

Using Fisher-Freeman-Halton test, we checked the plausibility of hypothesis H3b stating that the proportions of the parental satisfaction levels will be greater with longer hospitalizations. Given that the p-value of the Fisher-Freeman-Halton test was 0.82>0.05, we failed to reject the null hypothesis H10. Therefore, no statistically significant association was found between parental satisfaction with accommodation and length of stay in the hospital.

Table 12. The satisfaction with the professional level of health care provided to their child according to the length of stay in the hospital.

Satisfaction with the professional level of health care?	1-2 days n (%)	3-5 days n (%)	6-10 days n (%)	11 or more n (%)	P*
Yes	24 (92.31)	32 (100)	10 (100)	6 (100)	
No	1 (3.85)	0 (0)	0 (0)	0 (0)	
Blank	1 (3.85)	0 (0)	0 (0)	0 (0)	0.56
Total	26 (100)	32 (100)	10 (100)	(6)	

*Fisher-Freeman-Halton test

The groups of parents staying from 3 days to 11 or more had the everyone (100%) answering that they were satisfied with the professional level of health care. The only group having a parent (3.85%) who was not satisfied with the professional level of health care belonged to the group staying 1-2 days.

Using Fisher-Freeman-Halton test, we checked the plausibility of hypothesis H3b stating that the proportions of the parental satisfaction levels will be greater with longer hospitalizations. Given that the p-value of the Fisher-Freeman-Halton test was 0.56>0.05, we failed to reject the null hypothesis H11. Therefore, no statistically significant association was found between parental satisfaction with the professional level of health care and length of stay in the hospital.

Table 13. The level of overall satisfaction of parents according to the length of stay in the hospital.

Level of overall satisfaction from 1-5	1-2 days n (%)	3-5 days n (%)	6-10 days n (%)	11 or more n (%)	P*
1	0 (0)	0 (0)	0 (0)	0 (0)	
2	0 (0)	0 (0)	0 (0)	0 (0)	
3	1 (3.85)	3 (9.34)	0 (0)	0 (0)	0.33
4	3 (11.54)	9 (28.13)	3 (30)	2 (33.33)	
5	22 (84.62)	20 (62.5)	7 (70)	4 (66.67)	
Median	5	5	5	5	

*Kruskal-Wallis test

The majority in each group answered that their level of overall satisfaction on a scale of 1-5 was 5. This was true for 22 (84%) of parents staying 1-2 days in the hospital, 20 (62.5%) of parents staying 3-5 days, 7 (70%) in the 6-10 days group, and 4 (66.67%) in the group of parents staying 11 days or more.

Using Kruskal-Wallis test, we checked the plausibility of hypothesis H3b stating that the proportions of the parental satisfaction levels will be greater with longer hospitalizations. Given that the p-value of the Kruskal-Wallis test was 0.33>0.05, we failed to reject the null hypothesis H12. Therefore, no statistically significant association was found between overall parental satisfaction and length of stay in the hospital.

3 C – Satisfaction among parents according to special needs

Table 14. The level of satisfaction of parents of the accommodation according to whether or not their child had special needs.

Level of satisfaction	Special needs n (%)	Not special needs n (%)	P*
As expected	2 (28.57)	41 (70.69)	
Above my expectations	5 (71.43)	13 (22.41)	
Below my expectations	0 (0)	3 (5.17)	0.04
Blank	0 (0)	1 (1.72)	
Total	7 (100)	58 (100)	

* Fisher-Freeman-Halton test

When it comes to satisfaction with accommodation according to whether or not the parents had a child with special needs, the majority (70.7%) of the non-special needs group answered that they found the accommodation to be as expected, while the majority (71.4%) in the special needs group answered that they found the accommodation to be above their expectations.

Using Fisher-Freeman-Halton test, we checked the plausibility of hypothesis H3c stating that the proportions of the parental satisfaction levels will be greater if the child has special needs. Given that the p-value of Fisher-Freeman-Halton test was $0.04<0.05$, we reject the null hypothesis H13. Therefore, there is statistically significant association between parental satisfaction with accommodation and child's special needs.

Table 15. The satisfaction with the professional level of health care according to whether or not their child had special needs.

Satisfaction with the professional level of health care?	Special needs n (%)	Not special needs n (%)	P*
Yes	7 (100)	57 (98.28)	
No	0 (0)	1 (1.72)	0.89
Total	7 (100)	58 (100)	

* Fisher's exact test

Every parent; 7 (100%) in the group with a child with special needs were satisfied with the professional level of health care that they received, the same being true for 57 (98.3%) of the group of parents with children without special needs.

Using Fisher's exact test, we checked the plausibility of hypothesis H3c stating that the proportions of the parental satisfaction levels will be greater if the child has special needs. Given that the p-value of the Fisher's exact test was 0.89>0.05, we failed to reject the null hypothesis H14. Therefore, there is no statistically significant association between parental satisfaction with the professional level of health care and child's special needs.

Table 16. The level of overall satisfaction of parents according to whether or not their child had special needs.

Level of overall satisfaction from 1-5	Special needs n (%)	Not special needs n (%)	P*
1	0 (0)	0 (0)	
2	0 (0)	0 (0)	
3	0 (0)	3 (5.17)	0.48
4	3 (42.86)	13 (22.41)	
5	4 (57.14)	42 (72.41)	
Median	5	5	

*Mann-Whitney U test

The majority of parents in both the special needs group and the non-special needs answered 5 when asked to rate their level of overall satisfaction on a scale of 1-5. 4 (57.14%) of parents in the special needs group answered 5 while 3 (42.86%) answered 4. In the non-special needs group, there were 3 (5.17 %) parents who answered 3, 13 (22.41%) who answered 4, and 42 (72.41%) who answered 5.

Using Mann-Whitney U test, we checked the plausibility of hypothesis H3c stating that the proportions of the parental satisfaction levels will be greater if the child has special needs. Given that the p-value of the Mann-Whitney U test was 0.48>0.05, we failed to reject the null hypothesis H15. Therefore, no statistically significant association was found between overall parental satisfaction and child's special needs.

Objective 4: Determine the subjective assessment of the parents regarding the stress level of the child according to the type of stay of the parents.

Table 17. The subjective perception of their child stress level depending on the type of accommodation.

The amount of stress in the child perceived by the parent	**24-hour stay n (%)**	**Full day stay n (%)**	**Visits only n (%)**	**P***
Stress-free	5 (13.16)	9 (28.13)	2 (40)	0.06
Minimally elevated stress level	32 (84.21)	18 (56.25)	3 (60)	
Significantly elevated stress level	1 (2.63)	5 (15.63)	0 (0)	
Total	38 (100)	32 (100)	5 (100)	

*Fisher-Freeman-Halton test

All 3 groups of parents with different types of accommodation had the majority answering that they experienced their child`s stress level to be minimally elevated during the hospitalization period. This proportion was highest in the 24 hour stay group, with 32 (84.2%) answering this, and in the full day stay and visits only groups, 18 (56.3%) and 3 (60%) answered the same, respectively. The group with visits only had the highest proportion of parents

answering that they experienced their child`s stress level as stress-free, with 2 parents (40%) answering this, compared to 5 (13.16%) and 9 (28.13%) in the other two groups. The visits only group was the only group to not have any parent answer that they found the hospitalization to be significantly elevating their child`s stress level.

Using Fisher-Freeman-Halton test, we checked the plausibility of hypothesis H4 stating the child`s stress level will be lower in cases where the parents are allowed a longer stay in the hospital. Given that the p-value of Fisher-Freeman-Halton test was 0.06>0.05, we failed to reject the null hypothesis H16. Therefore, no statistically significant association was found between parental subjective perception of their child stress level and the type of accommodation.

Objective 5: Determine parental involvement in treatment and decision-making procedures.

Table 18: The frequency of parents who experienced/ expected a certain level of involvement in decision-making and child care involvement.

Experience/preference in health care involvement	No involvement/inclusion n (%)	Included in some aspects n (%)	Included in most aspects n (%)	Included in all aspects n (%)
Experience of level of inclusion in decision-making	9 (11.84)	36.84 (28)	21 (27.63)	18 (23.68)
Expectation of level of involvement in child`s care	3 (3.95)	20 (26.32)	37 (48.68)	16 (21.05)
Experience of level of involvement in child`s care	2 (2.63)	32 (26.32)	32 (42.11)	22 (28.95)
Preferred level of involvement	0 (0)	15 (19.74)	31 (40.79)	29 (38.16)

When it comes to inclusion in the level of decision-making, the majority (36.8%) found that they were included in some aspects of decision-making.

For expectation of level of involvement in their child`s care, 48.7% answered that they expected to be included in most aspects of their child`s care, while 42.1 % answered the same for how they experienced that they were included in the care.

Furthermore, the most frequent answer (40.8%) was that their preferred level of involvement would be to be included in most aspects of care, but almost the same proportion (38.2%) answered that they would prefer to be included in all aspects of care. This preference to be included in all aspects of care, was higher than both the experience and expectation of being involved in their child`s care and decision-making.

No one (0%) answered that they would prefer to have no involvement in the care of their child. 11.8% answered that they experienced no inclusion in the decision-making process, which is higher than for expectation and experience of level of involvement in the care of their child.

SECONDARY OBJECTIVES

Secondary objective 1: opinion of parents about the need for a 24h stay in the hospital.

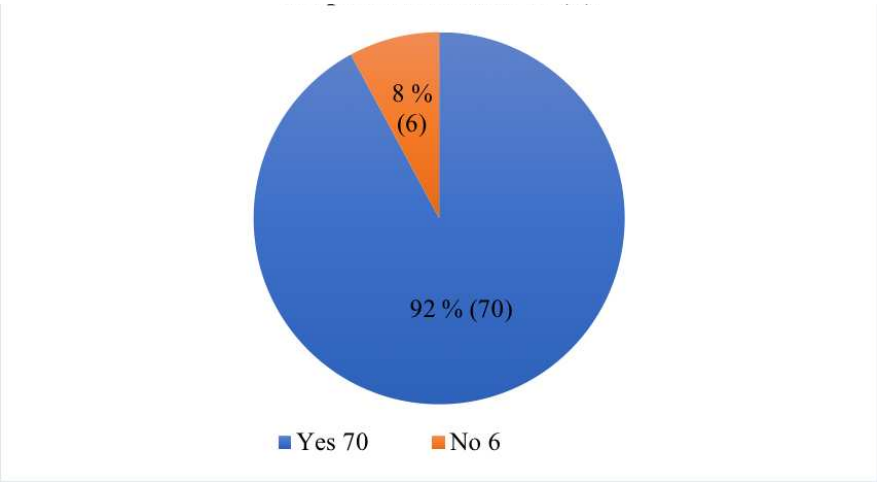

Figure 6. The opinion or parent about whether or not all parents should be allowed to stay 24-hours in the hospital with their hospitalized child.

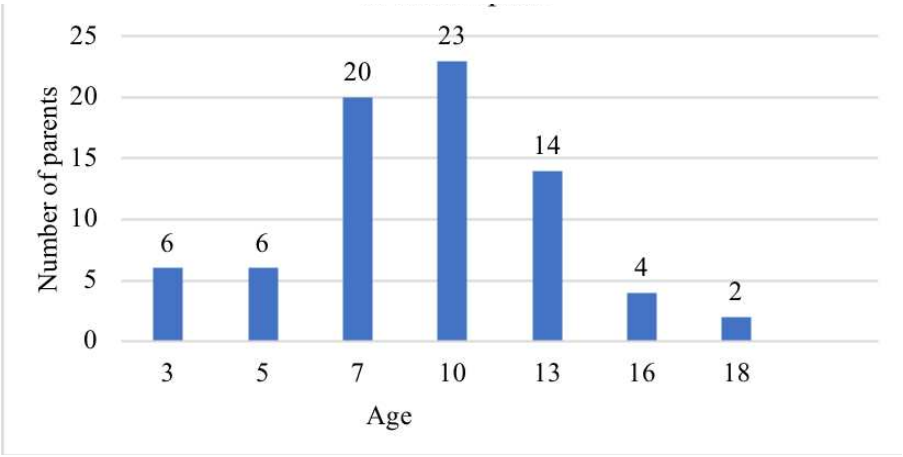

Figure 7: Opinion of parents about up to what age of the child all parents should be able to stay with their children 24-hours in the hospital.

Mean: 9.33

Median: 10

Range: 15

It is clear from this study that the vast majority (92.1%) of parents agree that parents should be allowed to stay 24-hour a day with their child in the hospital.

Secondary objectives 2, 3 and 4: Satisfaction among parents with doctors, hygienic conditions and satisfaction with meals in the hospital.

Table 19. Average level of satisfaction with doctors, nurses, hygiene and food among parents on a scale from 1-5.

Parameter of satisfaction	Median satisfaction on a scare 1-5
Satisfaction with doctor	5
Satisfaction with nurses	5
Satisfaction with hygiene	5
Satisfaction with quality of meals of child	5
Satisfaction with quantity of meals of child	5
Satisfaction with quality of meals of parent	5
Satisfaction with quantity of meals of parent	5

In general, parents of children admitted to the department of pediatric surgery in Split hospital show a high level of satisfaction, with median satisfaction levels of all parameters being 5 on a scale on 1 to 5.

Secondary objective 5: The opinion of parents who paid for accommodation on the accommodation price.

Table 20. The opinion of paying parents regarding accommodation price.

Opinion of parents about price level of accommodation n (%)	Low	Moderate	Expensive
	0 (0)	2 (50)	2 (50)

Only 4 parents payed for accommodation, so no definitive conclusions can be made without a larger sample, but the results from this study showing that half of parents who paid thought the price of accommodation was moderate and the other half stating that they experienced the accommodation as expensive.

5. DISCUSSION

This study is characterized by particularly two factors; the need for a larger sample, and the overall high level of satisfaction among parents in all groups, making comparison more challenging. Furthermore, the participants were, although different, a quite homogenous group regarding several factors, which made testing many variables difficult, as the parents with specific characteristics like special needs or paying parents were scarce in the study.

The study showed minor indications that parents that only had visits of their hospitalized children were somewhat less satisfied than the other groups. This is indicated by 2 factors; that the only parent to answer "no" on the question on whether or not they were satisfied with the professional level health care was in the visits only group, and that no parent in the visits only group found the accommodation to be above their expectations. These factors were statistically insignificant and as a whole the study did not confirm our hypothesis that the proportions of the parental satisfaction levels are higher across the types of accommodation that give the parents more time with their children. One can merely state that that the study should be expanded with participants and time to say anything conclusive.

Previous research on this subject is consistent in that parental presence and participation in the hospital setting is crucial for adequate care of the child, in concordance with their rights and necessities, although the exact extend of this involvement may vary with culture and personal preferences (1, 3) (4–6) (40, 43). Our study is highly supportive of this fact, although one cannot say, based on this study alone, that clear patterns exist showing that satisfaction among parents are directly influenced by the number of hours the parents are able to be with their child during hospitalization.

The second objective was concerned with paying parents, and undeniably, 4 subjects is a small group. Results that support the hypothesis about paying parents being less satisfied would be that they had a higher, although statistically insignificant, rate of parents who answered the accommodation to be below their expectations. Satisfaction with professional level of health care and average level of satisfaction in both payers and non-payers was similar, and all together, these results might suggest that paying for accommodation decreases the satisfaction with the accommodation itself but not the overall satisfaction or satisfaction with professionalism of health care, but this is also not possible to conclude for certain from our study.

The study found with statistical significance that increased number of hospitalizations increase the level of satisfaction with accommodation. This might be due to the fact that parents who have had more experience with health care of their child might have a more realistic view on it prior to the hospitalization, and they might be more aware of some of the limitations of

health care in their community. No statistical significant connections have been made from this study about satisfaction with professional level of health care or overall satisfaction and number of hospitalizations, and a higher number of participants would be needed for this. No connections were seen in this study regarding length of hospital stay and parental satisfaction.

Parents with children with special needs had a statistically significant higher level of satisfaction with the accommodation than the parents of children with no special needs. No connections were made between satisfaction with professional level of health care or overall satisfaction level and the presence of special needs. (It is possible that parents of children with special needs are more grateful for the help they receive as they likely have more challenges in their daily lives than the average population.) The special needs group was very small with only 7 participants, and the study would have to be expanded to see any connections.

The group with visits only had the highest proportion of parents answering that they experienced their child`s stress level as stress-free and the only group to not have any parent answer that they found the hospitalization to be significantly elevating their child`s stress level. This is suggesting that our hypothesis is wrong, and there may be several explanations for this. One likely explanation is that in the visits-only group, the relationship between child and parent might be such that they did not ask to stay with the child because they have the knowledge that their child can easily cope with such stress. Additionally, when looking at the children of parents in this group, they were all above 5 years old, and 60% above 13, so it is possible to think that the parents regarded increased age of their child as a factor decreasing the stress that hospitalization had on them, which is somewhat consistent with previous literature as younger children in the age group six months to four years are thought to be the most vulnerable in the hospital setting (9, 21). Furthermore, in order to see a clear pattern, more parents would have to be surveyed.

This study supports already known studies that show that parents largely have a wish to be involved when their child is hospitalized (29–31) .

When it comes to expectations, experience and preference of level of involvement in their child`s health care, parents most frequently answered inclusion in most aspects of care. Experience in decision-making had the most frequent response that they were included in some aspects of care.

The results in this study suggest that parents feel somewhat less a part of the decision making process than in the care of their child during their child`s hospitalization, with 9 (11.8%) who answered that they experienced no inclusion in the decision-making process, higher than for expectation and experience of level of involvement in care, which may be useful information

for the department`s medical staff in the future decision making processes during the treatment of children.

This study supports previously known research showing that most parents support that there is a need for parents to be able to stay with their child 24-hours, with 92% of parents supporting this (36). The average age of the child that parents stated was a little over 9 years, which of note, is higher than what the current practice is at the department.

Satisfaction with hospital staff, hygiene and meals in the pediatric surgery department in Split is high, with the median level of satisfaction being 5 on all parameters.

No connections can be made regarding experience of price level among paying parents, because there were only 4 parents who paid, but this study might be an indication that payers of accommodation in the hospital find the price moderate to expensive rather than low.

Limitations of this study is mainly the small number of participants. It is also possible that some parents wanted show a high level of satisfaction in the study if they were scared that even though the study was anonymous, that collectors of the questionnaire might look at the results, which of course was not done. It is also likely that the least satisfied parents refused to take the questionnaire all together, and that this might have influenced the results.

6. CONCLUSION

The possibility for involvement of parents during the hospitalization of their child is important for parents in the University Hospital of Split, demonstrated by this study, as seen with previous research on this topic. It is of vital importance that the Department of Pediatric surgery in Split focuses on creating an environment where parental participation in the care of children in the hospital is facilitated in such a way that it is of beneficence of the ill child. The satisfaction with the Pediatric surgery department at the University Hospital of Split as a whole appears from this study to be high. From the study it can also be concluded that parental satisfaction with accommodation increases with increased number of hospitalizations, and parental satisfaction with accommodation increases if their child has a special need.

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8. SUMMARY

Objectives: The aim of this study was to determine the parental experiences and satisfaction of their child`s hospital admission at the Department of Pediatric surgery in the University Hospital of Split.

Materials and methods: This cross-sectional study included a total of 76 respondents, who were parents of children admitted to the Department of Pediatric surgery in the University Hospital of Split. Data collection was performed in the period of January 2022 to the end of May 2022. The study included a questionnaire, which was voluntary and anonymous, containing 26 questions regarding satisfaction and experiences during hospitalization of their child at the pediatric surgery department in Split hospital.

Results: No statistical significance was found between satisfaction among parents and the type of accommodation, satisfaction of parents and whether or not they were paying for the accommodation or type of accommodation and stress level. The study found parental satisfaction with accommodation to statistically significantly increase with increased number of hospitalizations of the child and if the parent had a child with special needs. The level of preferred involvement among parents appears from this study to be involved in most aspects of care and decision-making. The study reports a high level of satisfaction with doctors, nurses, hygiene and meals, all with a median level of satisfaction of 5.

Conclusions: The possibility for involvement of parents during the hospitalization of their child is important for parents in the University Hospital of Split, demonstrated by this study, as seen with previous research on this topic. It is of vital importance that the department of Pediatric surgery in Split focuses on creating an environment where parental participation in the care of children in the hospital is facilitated in such a way that it is of beneficence of the ill child. The satisfaction with this department as a whole appears to be high, with certain aspects having potential for improvement.

9. CROATIAN SUMMARY

Cilj: Cilj ovog istraživanja bio je utvrditi zadovoljstvo roditelja i njihovo zadovoljstvo boravkom njihovog djeteta u Klinici dječje kirurgije Kliničkog bolničkog centra (KBC) Split.

Materijali i metode: Ovo presječno istraživanje obuhvatilo je 76 ispitanika, koji su bili roditelji djece primljene u Kliniku za dječju kirurgiju KBC-a Split, u razdoblju od siječnja 2022. do kraja svibnja 2022. Istraživanje je provedeno dobrovoljnim i anonimnim popunjavanjem upitnika od 26 pitanja o zadovoljstvu i iskustvima roditelja tijekom hospitalizacije njihovog djeteta na Klinici dječje kirurgije splitske bolnice.

Rezultati: Statistički nije utvrđena povezanost između zadovoljstva roditelja i tipa boravka uz dijete, kao ni zadovoljstva roditelja u ovisnosti jeu li plaćali smještaj ili ne te na tip boravka uz djete i subjektivnu procjenu razine stresa njihovog djeteta. Istraživanje je pokazalo da zadovoljstvo roditelja smještajem statistički značajno raste s povećanjem broja hospitalizacija djeteta te ako roditelj ima dijete s posebnim potrebama. Čini se da je razina preferirane uključenosti roditelja u ovom istraživanju zadovoljena u većini aspekata tijekom skrbi i donošenja odluka o liječenju njihove djece. Istraživanje je pokazalo visoku razinu zadovoljsva roditelja liječene djece s liječnicima, medicinskim sestrama, higijenom i obrocima na Klinici, sa srednjom ocjenom 5 na skali od 1-5.

Zaključak: Ovo istraživanje, kao I slična istraživanja provedena na ovu temu pokazala su važnost mogućnosti roditelja da budu prisutni uz svoju djecu tijekom hospitalizacije u splitskoj bolnici. U Klinici za dječju kirurgiju KBC-a Split je od iznimne važnosti stvaranje mogućnosti za olakšan boravak i sudjelovanje roditelja u skrbi za njihovu djecu tijekom boravka u bolnici na dobrobit bolesnog djeteta. Čini se da je zadovoljstvo roditelja ovim bolničkim odjelom u cjelini visoko u većini promatranih parametara dok poneki možda imaju potencijala za poboljšanje.

10. CURRICULUM VITAE

Personal information

Name and surname	Thale Berggren
Date of birth	December 11th, 1997
Place of birth	Drammen, Norway
Nationality	Norwegian
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Education

2016-2022	University of Split, School of Medicine
2013-2016	Eiker Videregående Skole

Work experience

07/2021- 08/2021	Medical student with temporary doctor license, Haukeland university hospital
06/2020- 10/2020	Medical assistant, DocKrause Orthopedic clinic
08/2018- 09/2019	Home nurse, Nedre Eiker Kommune
08/2016	Working at Gjvevilvasshytta tourist cabin
01/2012- 12/2014	Swimming instructor for children, Nedre Eiker Swim Club

Additional activities and qualifications

Language Norwegian	Mother tongue
Language English	Excellent
Driver license	Category B
10/2017-03/2021	Treasurer, ANSA Croatia

11. SUPPLEMENT

Supplement 1 – Questionnaire

QUESTIONAIRE – SATISFACTON OF PARENTS REGARDING HOSPITAL ACCOMODATION

Please answer the following questions to the best of your ability.
The answers will be used in the diploma-thesis by a student at the University of Split, School of Medicine.
The questionnaire is anonymous.

1. Age of parent:

Younger than 25 ☐ 25-30y ☐ 30-35y ☐ 35-40y ☐ 40-45y ☐ 45-50y ☐ 50-55y ☐ 55y & older ☐

2. Age of child:

0-1y ☐ 1-2 y ☐ 2-3y ☐ 3-5y ☐ 5-7y ☐ 7-10y ☐ 10-13y ☐ 13-16y ☐ 16y & older ☐

3. Which parent (s) accompanied the child to the hospital during this hospitalization?

   Father ☐
   Mother ☐
   Both ☐
   Other guardian ☐

4. Please chose the level of education that you have:

   Elementary school ☐
   High school ☐
   Student ☐
   University – bachelor's degree ☐
   University – master's degree ☐
   University – PhD ☐

5. Is this the first time you are accompanying this child/ other child to the hospital?

   First time ☐
   Second time ☐
   Third time or more ☐

6. What was the number of days that your child stayed/ will stay in the hospital? _____

1 ☐ 2 ☐ 3 ☐ 4-5 ☐ 6-7 ☐ 8-10 ☐ 11-15 ☐ 16-30 ☐ 31 or more ☐

7. Please specify the type of accommodation you stayed in during your hospital stay:
   24h stay ☐
   Full day stay ☐
   Visits only ☐

8. Did you pay for 24h accommodation to stay with your child in the hospital?

   Yes ☐
   No ☐

9. What do you think of the price of the 24h accommodation?

   Low ☐
   Moderate ☐
   Expensive ☐

10. Does your child have any special needs? (Breastfeeding, disability, or other special need)

    Yes ☐
    No ☐

11. How was the accommodation for you or your child, in comparison to your expectation?

    As expected ☐
    Above my expectations ☐
    Below my expectations ☐

12. How satisfied are you regarding the doctor`s attitude, their availability and the information provided about the course of your child`s treatment? *(1 being completely dissatisfied and 5 completely satisfied)*

    1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

13. How satisfied are you regarding the care of the nurses that were provided? *(1 being completely dissatisfied and 5 completely satisfied)*

    1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

14. How satisfied was your child and you regarding the quality and quantity of meals ? *(1 being completely dissatisfied and 5 completely satisfied)*

Quality: **CHILD** **YOU**

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

Quantity: **CHILD** **YOU**

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

15. How satisfied were you regarding the hygienic conditions during your and your child`s stay in the hospital? *(1 being completely dissatisfied and 5 completely satisfied)*

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

16. In your opinion, did your child receive health service on a professional level that was satisfactory to you?

Yes ☐ No ☐

17. What is your subjective assessment of your child`s stress-level during the hospitalization and treatment?

Stress-free ☐
Minimally elevated stress level ☐
Significantly elevated stress level ☐

18. If you had full day stay or visits only- do you think your child`s stress-level would be lower if you could stay with him/her longer?

Yes ☐ No ☐

19. If you had 24h stay-U do you think your child`s stress-level would be higher if you could not stay with him/her?

Yes ☐ No ☐

20. In your opinion, do you think that every parent should be allowed to stay with their child for 24h a day?

Yes ☐ No ☐

21. Up to what age (of the child) do you think that parents should be allowed to stay with their child for 24h a day during hospitalization

1y ☐ 2y ☐ 3y ☐ 5y ☐ 7y ☐ 10y ☐ 13y ☐ 16y☐ 18y ☐

22. To what level do you feel as though you were included in the decision-making regarding your child's care during the hospital stay?

Not included at all ☐
Included in some aspect of decision making ☐
Included in most aspect of decision making ☐
Included in all aspect of decision making ☐

23. What was your expectation as a parent prior to hospitalization - to what degree did you wish to be involved in the care of your child during your child`s hospitalization?

No involvement ☐
Some involvement ☐
Involvement in most aspects of care ☐
Involvement in all aspects of care ☐

24. To what level did you feel as though you were involved in the care of your child during the hospital stay?

No involvement ☐
Involved in some aspects of care ☐
Involved in most aspects of care ☐
Involved in all aspects of care ☐

25. Looking back, if you could choose, what would have been your involvement in your child`s care during the hospital stay?

No involvement ☐
Involved in some aspects of care ☐
Involved in most aspects of care ☐
Involved in all aspects of care ☐

26. On a scale from or 1-5, how satisfied are you with the total process of the hospitalization of your child? *(1 being completely dissatisfied and 5 completely satisfied)*

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

Thank you for your answers!