

## EMOTIONS AND EXPERIENCES OF HOSPITALIZED SCHOOL AGE PATIENTS

Maja Crnković, Branka Divčić, Željka Rotim and Josipa Čorić

University Department of Pediatrics, Sestre milosrdnice University Hospital, Zagreb, Croatia

**SUMMARY** – The aim of the study was to assess how children and adolescents experience hospitalization and separation from their parents, their home and daily activities, in order to improve the psychosocial quality of hospital stay. Emotions and experiences reported by hospitalized children and adolescents are presented and discussed. First, the concept of fear, the areas of children's interests and their attitude towards staying at hospital for treatment are interpreted. Second, the methods used by medical staff to help children cope with this situation are pointed out. These methods include: 1) allowing parents to be near their children throughout the course of treatment; 2) providing a safe, cheerful, and helpful environment; and 3) giving children opportunities to learn and play. The program entitled For a Child's Smile in Hospital, launched at University Department of Pediatrics, Sestre milosrdnice University Hospital, is presented. It is pointed out that giving children emotional support and information they can understand, and involving them in various activities can increase the children's positive interpretation of their disease and their stay at hospital, while also providing an insight into their self-concept as well as other thoughts and feelings. In addition, a review of the study and recommendations for future research are discussed.

**Key words:** *Child psychology; Child, hospitalized – psychology; Anxiety disorders – diagnosis; Anxiety disorders – psychology; Adolescent psychology; Stress – psychological; Questionnaires*

### Introduction

Hospitalization plays an important role in the care for children's health, especially children that require intensive medical care. However, hospitalization has some unfavorable influences on the child, which need to be recognized and preferably excluded. The primary goal is to reduce hospitalization to minimum and, when it is impossible, to provide the least traumatizing treatment procedures during hospital stay. After the first children's hospitals were founded at the beginning of the 19<sup>th</sup> century, numerous attempts have been made to improve hospital conditions. Finally, at the end of the 20<sup>th</sup> century, true efforts were invested to minimize the unfavorable impact of hospitalization. There were various pub-

lic and professional gatherings and campaigns promoting the idea of an 'open-type hospital'. These actions prompted the European Parliament to adopt the Charter for Children in Hospital in 1986, which also defines a list of hospitalized children's rights<sup>1</sup>. The latest discoveries in surgery and medical treatment do not take into account the entire range of children's needs; rather there is a tendency of directing attention only to the body and the disease, while ignoring the medical treatment effects on the child's emotions now and in the future<sup>1</sup>. Therefore, many children experience psychological trauma, which can lead to permanent consequences.

Going to hospital means being separated from one's family and the known surroundings, experiencing a change in daily routine and going through a series of unpleasant experiences opposite to the needs of the child's development. Inappropriate staff treatment and hospitalization conditions can have detrimental effects on the child's emotional development. Aside from feel-

Correspondence to: *Maja Crnković*, Department of Clinical Psychology, University Department of Pediatrics, Sestre milosrdnice University Hospital, Vinogradska c. 29, HR-10000 Zagreb, Croatia  
E-mail: [crnkovic\\_maja1@yahoo.com](mailto:crnkovic_maja1@yahoo.com)

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ing discomfort during hospital stay, the child can experience emotional difficulties later in life<sup>2</sup>.

There is significant variability in the psychological reactions of some children to going to hospital. They are determined by differences in age, sex, personality traits, the kind and severity of disease, how unpleasant the symptoms are, the type of treatment, hospital surroundings, and how the medical staff treats the patient<sup>3</sup>. The factors that influence the child's adjustment to hospital stay include age and psychosocial development of the child, the frequency and duration of hospitalization, the relatedness of the child with the mother (parents) and how the parents react to hospitalization.

Psychological difficulties that emerge during the child's hospital stay are commonly called hospitalism. Separation longer than five months causes the feeling of indifference towards the mother and can lead to hospitalism syndrome – a state characterized by retarded development of fine and gross motor skills, as well as of speech and mental development. Havelka<sup>3</sup> lists categories of symptoms that can occur as a consequence of longer child's separation from the mother (for example, children at child care institutions, or longer hospitalization) and mainly manifest after hospitalization, when coming home: 1) inappropriate dietary habits, personal hygiene and sleeping; 2) behavioral disorders; 3) neurotic disturbances; 4) psychosomatic disorders; and 5) speech disorders – stuttering and baby talk. Psychogenic behavioral disturbances in pediatric population include relapsing colics, psychogenic vomiting, affective respiratory spasms, hair pulling (trichotillomania), tics, enuresis, encopresis, night terrors and speech disturbances<sup>4</sup>.

Studies have shown that there is no sex difference regarding emotions and experiences during hospitalization. For example, some authors report that there is no sex difference in the prevalence of separation anxiety in children and adolescents<sup>5</sup>, however, some other authors dispute such a statement. So, Noll *et al.*<sup>6</sup> found the boys suffering from sickle-cell anemia to exhibit a higher level of depression and social maladjustment than girls suffering from the same disease. Baraban *et al.*<sup>7</sup> found hospitalized girls to show higher levels of fear of scanning, needles and pain than boys.

Psychological reactions to hospitalization can be categorized according to the child's age. Anaclitic depression may develop as early as infancy. It is characteristic of older infants that are emotionally attached to their mother or caretaker in the first months of life and are suddenly separated from them by hospitalization. The

child is depressed, less active, experiences loss of appetite and insomnia, which makes him/her more prone to infectious diseases. If the child is separated from the mother for more than 3 months, with the mother often absent, full recovery is less likely. It is possible that later in life the child will have emotional difficulties in establishing close relationships with other people. If the child returns home relatively quickly, or arrangements are made for the mother to stay with her child during hospitalization, the signs of anaclitic depression will completely vanish or they will not appear at all.

Preschool children are quite sensitive to separation from their parents and staying at hospital. They may develop very strong reaction, be very upset and cry a lot, refuse to eat, they sleep only when they are exhausted from crying, and refuse medical care and examinations by hospital staff. They may possibly exhibit regression to a lower level of the already acquired skills such as walking, talking and sphincter control. At early school age, the child is still rather sensitive; however, now the child can understand the need of staying at hospital if explained appropriately. Nevertheless, a vast number of children aged 8-9 years are not fully capable of adapting to hospital stay. Psychological difficulties are most pronounced when the separation from the parents is very sudden and the child is not prepared to the change. Adolescents learn to use new cognitive skills such as reaching the improved formal operational thinking, which includes the possibility of abstract reasoning, self-awareness, alternative thinking and metacognition. Therefore, recent studies refuse the opinion that adolescence is the time of 'tumult and stress'<sup>8</sup>. Likewise, adolescence implies improved understanding of causal relations, which enables better understanding of stressful experiences<sup>9</sup>. Adolescents understand that their parents and hospital staff aim to help in their recovery, and that hospital stay is necessary to speed up this process. At the same time, as 'self-aware adults' they can feel their parents are overreacting and diminish the importance of the symptoms; they may also resent being treated as a 'child'.

When addressing hospitalism, it is important to be aware that the issue is not the child's negative reaction to hospital as such, but to the loss of a loved one, i.e. a parent. Bowlby's observations from 1973 show that the separation reaction during one- to several-week hospitalization can be divided into three stages<sup>10</sup>. The first day of hospital stay, children usually cry or express anger towards

their surroundings. It is the protest stage. Later, children become apathetic; they lose interest in their surroundings and have a hard time accepting help<sup>3</sup>. They withdraw into themselves, lose appetite and have sleep problems. This stage is called grief or desperation. If the hospital stay is prolonged, children reach the pseudo-acceptance stage or indifference stage. Children will gradually become more interested in their surroundings; they will accept toys, food and care. However, children will not show affection towards their mothers, for their sociability will only be a pseudo adjustment, although they will appear happy and not frightened. It is the children who have spent the longest amount of time at the hospital that most overtly show psychogenic disorders.

There are several ways to avoid or lessen the unpleasant feelings formed during hospitalization. The first way is not to hospitalize children under 5 if there is another method of treatment, such as either day hospital or outpatient clinic, or receiving treatment at home with appropriate extra-hospital care<sup>2</sup>. If the child is hospitalized, the mother should be allowed to stay with him/her at the hospital ('rooming in') or make whole-day visits ('open-type hospital') possible, and enable the parents to participate in their child's medical treatment. A holistic approach tailored to each individual child's needs should be encouraged. Likewise, hospitalized children should participate in educational, cultural and entertaining activities, such as a hospital kindergarten and school, drama classes and other different forms of children's play. These requirements have all been included in the program entitled For the Child's Smile in Hospital, the goal of which is to promote and implement humanization of hospital treatment of children. This campaign started in 2007 at the University Department of Pediatrics, Sestre milosrdnice University Hospital, where the program has been successfully implemented, meeting all the preset requirements, thus having earned the title of Hospital – Children's Friend. The aim of this study was to define emotions and experiences of hospitalized children and adolescents at a hospital implementing For the Child's Smile in Hospital program.

### Problems

- To identify the most common emotions and experiences during hospitalization of children and adolescents.
- To establish the possible relation between particular experiences and emotions of hospitalized pediatric population according to age.

### Subjects and Methods

The study was conducted from May 2007 till July 2008 and included patients aged 7-19 hospitalized and treated at University Department of Pediatrics, Sestre milosrdnice University Hospital. There were 190 patients, 65 male and 125 female, 81 of elementary school age and 109 of high school age (adolescents). Elementary school age included 7- to 14-year-old children, and high school adolescents aged 14-19. According to diagnosis, 26 subjects were treated at respiratory-allergology, 64 at endocrinology, 19 at neurology, 27 at cardiology-rheumatology, 27 at gastroenterology, 4 at hematology, and 23 at nephrology departments of the University Department of Pediatrics.

At the end of hospitalization, the patients filled out a questionnaire entitled 'That's me in hospital', which was partially taken from the For a Child's Smile in Hospital program and adjusted to the study objectives. The questionnaire consists of five open-type questions, i.e. five unfinished sentences: 1) "In hospital I often think about ..."; 2) "The doctors and nurses tell me that ..."; 3) "In hospital I am afraid to see ..."; 4) "In hospital I am interested in ..."; and 5) "I would like to tell the children who come to hospital today that ...". These sections/questions measure particular emotions and experiences of hospitalized children and adolescents separated from their parents. We categorized answers to these five unfinished sentences into five variables as follows: 1) thinking and emotions in hospital; 2) information contents from hospital staff; 3) contents of fear; 4) area of interest while in hospital; and 5) attitude towards hospital stay.

The answers to this open-type questionnaire were analyzed and categorized by the authors independently, then compared and adjusted using standard nonparametric statistics as follows:

1. variable 1 consisted of 5 categories: home and school, disease, unpleasant emotions, pleasant emotions, and others;
2. variable 2 consisted of 4 categories: order and reprimands, advice and information, comfort, encouragement and entertainment, and others;
3. variable 3 consisted of 5 categories: fear of one's own suffering, fear of suffering of the others, scared of medical tests, not afraid of anything (nothing), and others;
4. variable 4 consisted of 6 categories: interest in other persons, concerned about their condition (disease),

interested in different hospital activities (activity), interested in the time of discharge from the hospital (going home), not interested in anything (nothing), and something else (other); and variable 5 consisted of 4 categories: recommendations and advice, good wishes and encouragement, discouraging comments, and others.

*Table 1. Basic descriptive statistics parameters of dependent variable 1: thinking and emotions at hospital*

	Frequency	Percent	Valid percent	Cumulative percent
Home/school	149	78.4	78.4	78.4
Disease	16	8.4	8.4	86.8
Unpleasant	10	5.3	5.3	92.1
Pleasant	12	6.3	6.3	98.4
Other	3	1.6	1.6	100.0
Total	190	100.0	100.0	

*Table 2. Basic descriptive statistics parameters of dependent variable 2: contents of information received from hospital staff*

		Frequency	Percent	Valid percent	Cumulative percent
Valid	Orders/reprimands	25	13.2	13.2	13.2
	Advice/information	121	63.7	63.7	76.8
	Comfort/encouragement	27	14.2	14.2	91.1
	Entertainment	17	8.9	8.9	100.0
	Other	17	8.9	8.9	100.0
	Total	190	100.0	100.0	

*Table 3. Basic descriptive statistics parameters of dependent variable 3: contents of fear*

		Frequency	Percent	Valid percent	Cumulative percent
Valid	Own suffering	4	2.1	2.1	2.1
	Others suffering	32	16.8	16.8	18.9
	Medical tests	93	48.9	48.9	67.9
	Nothing	51	26.8	26.8	94.7
	Other	10	5.3	5.3	100.0
	Total	190	100.0	100.0	

These five dependent variables were combined with an independent variable of age as variable 6 consisting of two categories: elementary school children and high school adolescents.

By the end of their hospital stay, all study subjects filled out the questionnaire by themselves, without help of medical staff or parents.

## Results

Results were analyzed by use of descriptive statistics, i.e. frequency, percentage, arithmetic mean and cross-tabulation (including Pearson's  $\chi^2$ -test). Descriptive statistics analysis revealed 78% of 190 study subjects to have thought mostly of home or school while in hospital, 8% of the disease, 5% had unpleasant emotions while at school, 6% had positive emotions, and 1% thought of something else (Table 1); 63% of study subjects felt they most frequently were offered advice or information related to their disease from hospital staff, 14% felt they mostly received comfort, encouragement and entertainment, 13% felt they mostly had to listen to orders and reprimands, and 8% reported something else (Table 2); 48% of study subjects reported they were most scared of medical tests, 26% were not afraid of anything, 16% were afraid of witnessing others' suffering, 2% were afraid of their own suffering, and 5% said something else (Table 3); 26% of study subjects stated they

were mostly concerned about their condition, 17% were interested in different hospital activities, 16% were interested in other people, 13% were interested in the time of discharge from the hospital, 12% were not interested in anything, and 12% stated something else (Table 4); 42% of study subjects sent good wishes and encouragement to other children that were or were going to be hospitalized, 43% offered some advice, 13% sent

Table 4. Basic descriptive statistics parameters of dependent variable 4: area of interest at the hospital

		Frequency	Percent	Valid percent	Cumulative percent
Valid	Person	31	16.3	16.5	16.5
	Disease	51	26.8	27.1	43.6
	Activity	34	17.9	18.1	61.7
	Going home	25	13.2	13.3	75.0
	Nothing	24	12.6	12.8	87.8
	Other	23	12.1	12.2	100.0
	Total	188	98.9	100.0	
Missing		2	1.1		
Total		190	100.0		

Table 5. Basic descriptive statistics parameters of dependent variable 5: attitude towards hospital stay

		Frequency	Percent	Valid percent	Cumulative percent
Valid	Recommendation/advice	82	43.2	43.6	43.6
	Encouragement/ Good wishes	80	42.1	42.6	86.2
	Discouraging	25	13.2	13.3	99.5
	Other	1	.5	.5	100.0
	Total	188	98.9	100.0	
Missing		2	1.1		
Total		190	100.0		

Table 6. Relation between age and dependent variable of thinking and emotions while at hospital

	Value	df	Asymp. sig. (2-sided)
Pearson's $\chi^2$ -test	1.407 <sup>a</sup>	2	0.495
Likelihood ratio	1.390	2	0.499
Linear-by-linear association	0.358	1	0.549
N of valid cases	190		

<sup>a</sup>0 cells (0.0%) have expected count less than 5; minimum expected count is 6.82.

Table 7. Relation between age and dependent variable of contents of information received from hospital staff

	Value	df	Asymp. sig. (2-sided)
Pearson's $\chi^2$ -test	3.571 <sup>a</sup>	3	0.312
Likelihood ratio	3.753	3	0.289
Linear-by-linear association	3.140	1	0.076
N of valid cases	190		

<sup>a</sup>0 cells (0.0%) have expected count less than 5; minimum expected count is 7.25.

discouraging recommendations, and 0.5% stated something else (Table 5).

Cross-tabulation analysis showed some cells to have less than five subjects. For this reason, it was necessary to recode three variables in order to obtain higher statistical validity<sup>11,12</sup>. For further interpretation three variables were recoded and Pearson's  $\chi^2$ -test was analyzed. The three recoded variables were: 1) thinking and emotions in hospital; 3) contents of fear; and 5) attitude towards hospital stay. Now, variable 3 consisted of 3 categories: home and school, pleasant emotions, and unpleasant emotions; variable 3 consisted of 3 categories: fear from suffering and pain, fear from medical examinations, and not afraid of anything (nothing); and variable 5 consisted of 2 categories: encouraging and discouraging comments about hospital stay.

Table 8. Relation between age and dependent variable of contents of fear

	Value	df	Asymp. sig. (2-sided)
Pearson's $\chi^2$ -test	13.151 <sup>a</sup>	2	0.001
Likelihood ratio	13.307	2	0.001
Linear-by-linear association	0.581	1	0.446
N of valid cases	190		

<sup>a</sup>0 cells (0.0%) have expected count less than 5; minimum expected count is 15.35.

Table 9. Relation between age and dependent variable of area of interest at hospital

	Value	df	Asymp. sig. (2-sided)
Pearson's $\chi^2$ -test	7.063 <sup>a</sup>	5	0.216
Likelihood ratio	7.023	5	0.219
Linear-by-linear association	0.568	1	0.451
N of valid cases	188		

<sup>a</sup>0 cells (0.0%) have expected count less than 5; minimum expected count is 9.79.

Analysis of all cross-tabulation results showed that there was no correlation between age and dependent variables 1) thinking and emotions in hospital (Table 6, Fig. 1); 2) contents of information from medical staff (Table 7, Fig. 2); 4) area of interest in hospital (Table 9, Fig. 4); and 5) attitude towards hospital stay (Table 10, Fig. 5), except for the correlation recorded between age and variable 3) contents of fear (Table 8, Fig. 3). Accordingly, an association was found between patient age and contents of fear (Pearson's  $\chi^2=13.151$ ;  $df=2$ ;  $P>0.05$ ).

## Discussion

Descriptive statistics showed the majority of children (78%) mostly thought about their home, parents, school and

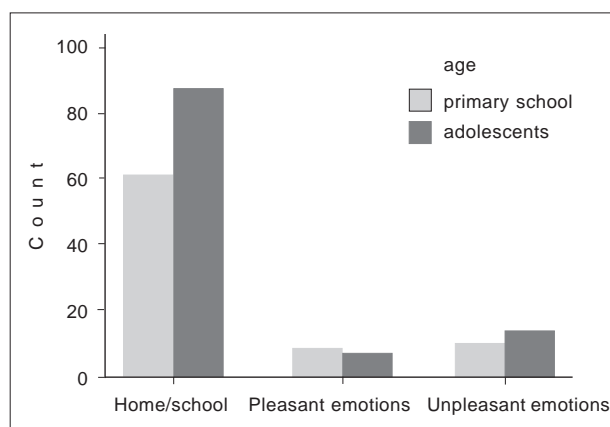


Fig. 1. Relation between age and dependent variable of thinking and emotion in hospital

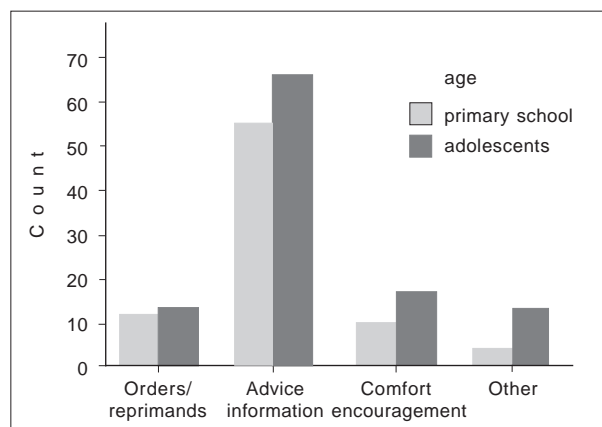


Fig. 2. Relation between age and dependent variable - information content from the hospital staff

Table 10. Relation between age and dependent variable of attitude towards hospital stay

	Value	df	Asymp. sig. (2-sided)	Exact sig. (2-sided)	Exact sig. (1-sided)
Pearson's $\chi^2$ -test	0.001 <sup>b</sup>	1	0.978		
Continuity correction <sup>a</sup>	0.000	1	1.000		
Likelihood ratio	0.001	1	0.978		
Fisher's exact test				1.000	0.577
Linear-by-linear Association	0.001	1	0.978		
N of valid cases	188				

<sup>a</sup>computed only for 2x2 table; <sup>b</sup>0 cells (0.0%) have expected count less than 5; minimum expected count is 11.06.

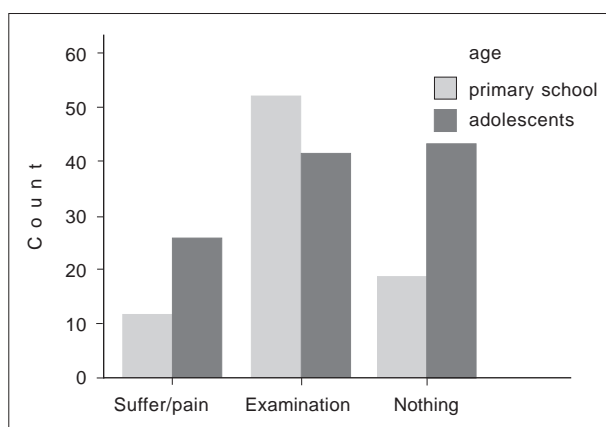


Fig. 3. Relation between age and dependent variable contents of fear

friends while at hospital, whereas only 9% thought about their disease; 5% of study children expressed negative emotions and 6% positive emotions during their hospital stay. The results obtained are consistent with literature reports which state that fear and worrying in hospitalized children are most commonly caused by separation from their parents<sup>13-16</sup>. Over time, it has been realized that the child's negative reaction is not caused by the disease and surroundings as such, but by the loss of a parent and their home as a 'safe nest'. In his meta-analysis, Thompson<sup>17</sup> reviewed over 300 studies of children's reactions to hospitalization. The author concludes that negative reactions of children to separation from their parents depend on the treatment they receive at the hospital. In more detail, negative reactions stem from a failure to provide the children with sufficient in-

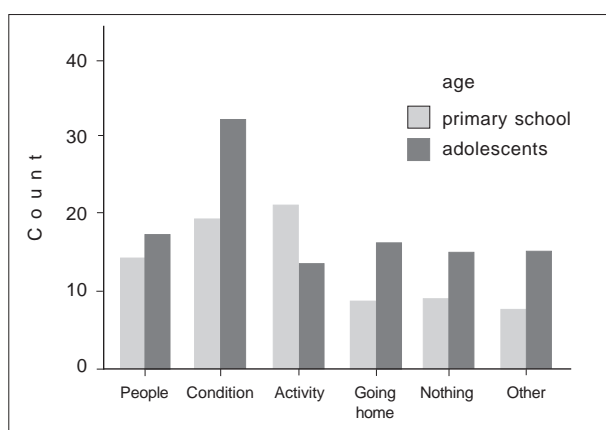


Fig. 4. Relation between age and dependent variable - area of interest in the hospital

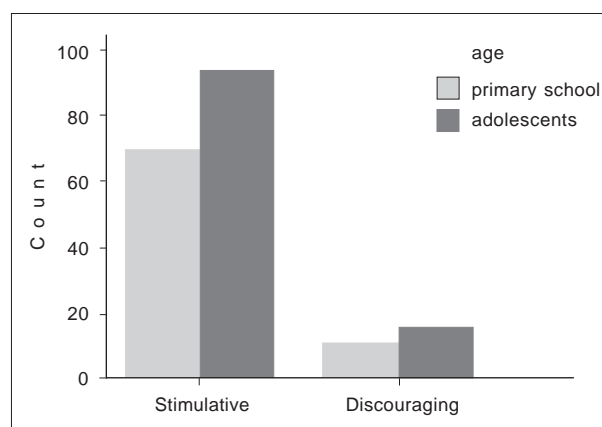


Fig. 5. Relation between age and dependent variable - attitude towards the stay in hospital

formation about their disease and their progress, the lack of preparation for upcoming medical tests, and the lack of 'open-type hospitals'. Although some studies found the parents' presence at the hospital throughout the day to have adverse impact on their children resulting in aggression, the majority of studies confirmed the favorable effect of 'rooming-in' in terms of faster adaptation to hospital stay and more appropriate coping with the stress associated with medical tests and procedures<sup>17</sup>.

More than 60% of our study subjects reported they most frequently got information and advice related to their disease, while 15% felt they mostly heard encouragement, jokes and stories of entertaining character. About the same proportion of children stated they mostly got orders related to their behavior and attitude towards their disease. Studies have shown that preparing the child for hospitalization and medical procedures significantly reduces anxiety, the experience of pain and the probability of additional complications or side effects, increases the child's readiness to cooperate, and reduces the rate of aberrant behavior during and after hospitalization<sup>18</sup>. Baraban *et al.*<sup>7</sup> confirmed that nearly 70% of hospitalized children would like to know more about their disease by talking to their doctor, then their parents. Professional help has proven to be efficient to a different degree for different professions and in different stages of disease. During hospital stay, adolescents find support from medical staff and help regarding their needs, being informed on time and not being treated as children to be most important. For younger hospitalized children, besides help offered by medical staff, the presence of parents at the hospital is also of great importance.

Some 50% of study children reported greatest fear from medical tests, while only 2% were afraid of pain. Interestingly, 17% of children were afraid of pain and suffering of other children sharing the same room, whereas 26% felt no fear while at the hospital. Surrounding events, which were studied within the stimulatory stress models, will be perceived as stressors only when children evaluate their influence as a threat. In this sense, primary evaluation is the evaluation of what is important for one's satisfaction in relation to one's surroundings<sup>19</sup>. If children evaluate an event as being unfavorable for them, as endangering or hurting them, and impossible to control it, it will produce unpleasant emotions such as fear. The authors state that such emotions represent one's own way of mobilizing and preparing to be faced with stressors. Numerous studies of stress caused by invasive medical procedures indicate that in such situations highly anxious persons experience a higher level of anxiety and report higher levels of pain and fear than people with lower level of anxiety<sup>19</sup>. Likewise, research findings show that the significance of the nature of anxiety is related to the situation causing pain or fear. Therefore, it is concluded that children fear from other children's suffering because they presume they will suffer too. Furthermore, it is important that the child is given due explanation of the state of his/her disease, while other children have different diseases. Coyne<sup>13</sup> stresses that children need appropriate information about the state of their disease. Our study supported this thesis because 25% of study children stated they were mostly interested in the state of their disease while at hospital, and almost half of them reported they were most afraid of the tests they had to undergo. Therefore, there must be proper communication among medical staff, parents and children, for the patients to adjust to their hospital stay.

In our experience, venepuncture is a medical procedure that most commonly causes fear and discomfort in children during hospitalization. It is a routine and unfortunately unavoidable procedure. In order to minimize the child's fear, appropriate preparatory steps are taken that warrant high quality procedure. Today, blood is drawn using different systems that include minimized needles and microtainer tubes which require very small blood samples. A local analgesic is used in the form of cream applied onto the venepuncture site and venepuncture is performed when it is in effect. In children, venepuncture is a more complex procedure than in adults. The preparation is longer, be it in the form of

educating parents so they can successfully support their child, or talking to the child and preparing him/her for the procedure. Laboratory methods are becoming more sophisticated and smaller quantities of blood samples are required, which will certainly lead to a completely painless procedure, thus helping reduce this most common fear in children<sup>20</sup>.

Our study children were most commonly interested in the state of their disease (26%) and the time of their discharge from the hospital (13%). Yet, there were 18% of children that were mostly interested in different hospital activities such as playing with toys, reading stories, school at hospital, and being in the children's lounge; 16% were interested in other people at the hospital such as other children and medical staff; and 13% of study children had no specific interests while at hospital. Nearly one third of study subjects reported they were interested in activities and people at the hospital, indicating the major role of organized daily activities for children, e.g., playing, education and spending time with their peers during their hospital stay.

Nearly half of study subjects (41%) sent good wishes and encouragement to other hospitalized children; 43% offered advice on how to feel and act while at hospital, while 13% sent discouraging messages like: "The food is awful" or "I hope you'll go home as soon as possible". In addition, 86% of study subjects sent positive, stimulating messages to other hospitalized patients, while only 13% sent discouraging messages (Fig. 5). There was no difference in this ratio between elementary school children and high school adolescents (Pearson's  $\chi^2$ -test=0.001; df=1; P=0.97) (Table 10).

Considering correlation between age and dependent variables, the only correlation was recorded between age and "contents of fear" (Pearson's  $\chi^2$ -test=13.15; df=2; P=0.001). As shown in Figure 3, elementary school children mostly named their fears as fears from medical tests, and far less often as fears from suffering and pain itself; also, they far less frequently reported no fears. On the other hand, adolescents mostly reported having no fears and almost as often having fear from medical tests. However, although the adolescents' fear from suffering and pain was less often reported, it was a more common concern in adolescents than in elementary school children.

When it comes to the differences between children of different age regarding emotions and experiences during hospitalization, there is some inconsistency



among various theories and studies. In adolescents, particularly those with chronic diseases, the problems with facing the disease were somewhat different. The disease usually increases dependence on other people at the time when adolescents strive to be very independent from adults. In addition, unlike smaller children, adolescents react very anxiously to vague prognoses. One study found the adolescents receiving clear diagnosis and prognosis of their disease to exhibit less anxiety<sup>19</sup>. In another study, hospitalized adolescents were found to be more depressed than hospitalized children<sup>21</sup>. It is possible that younger children use more efficient coping mechanisms to deal with their disease, e.g., interpreting their disease phenomenologically or as a consequence of infection. At the same time, it is more probable that younger children receive more social support from their parents and medical staff, which is likely to make them less depressed. On the other hand, due to their cognitive development, adolescents are more contemplative, more burdened with questions about their personal identity and development of their life plan. This process can be hindered by the disease, especially a chronic one, which possibly makes adolescents more prone to depression. Yet, most studies confirmed age differences in emotions and experiences of hospitalized children, where younger children feared from separation from their parents, whereas older children were mostly burdened with fear from experiencing pain and hurting their body<sup>2,17,22</sup>.

A number of studies<sup>22</sup> showed that young children could not successfully generate alternative solutions to different threatening situations. Therefore, they will exhibit behaviors such as running towards the mother, and, if the mother is not by their side, crying or showing anger. If they have no ability to anticipate future events, children will stressfully react to separation from their parents. On the other hand, adolescents with a more developed emotional intelligence will differently evaluate stressful situations such as hospital stay. They will find alternative solutions and control such situations better. They will evaluate separation from their parents as an important life task, as a challenge rather than a threat that will enable them to face separation differently<sup>19</sup>. An additional assurance that adolescents are less likely to react stressfully to separation from their parents is the fact that in our culture separation anxiety is considered to be a normal developmental phenomenon in the early years of the child's life, whereas later it is considered as a type of maladjustment disorder. This

type of disorder occurs most commonly in puberty and is less common in later adolescence.

#### *Possible methodological shortcomings and guidelines for further research*

There are few possible shortcomings of the present study. The first was the instrument itself, i.e. the questionnaire for hospitalized children and adolescents. The questionnaire contains open-type questions, which means that researchers may have been prone to subjective evaluation while categorizing the answers. Likewise, hospitalization records of the study children were not noted (whether or not it was their first time at hospital). It is an important issue because the children's abilities to cope with separation change depending on whether it is their first time at hospital (greater separation difficulties are to be expected), or if staying at hospital is a previously familiar situation. The issues stated above show the difficulties of conducting an objective study in natural surroundings, as in the present study, rather than in an artificially created environment. However, this field of research is of utmost importance for healthcare professionals, including physicians, nurses and psychologists, as well as for children, adolescents and their parents; therefore, additional studies are highly welcome. In future studies, the impact of external factors should preferably be as strictly controlled as possible. In addition, despite richer contents of answers in an open-type questionnaire, a closed-type questionnaire is recommended for higher accuracy and reliability of the results obtained.

#### **Conclusion**

The study confirmed that the majority of hospitalized children and adolescents most frequently were thinking of their home, parents, school and friends. More than half of the children and adolescents stated they were most commonly offered advice and information about their disease by medical staff. Half of the study subjects stated they feared medical tests most while staying at hospital; 17% felt fear from pain and suffering of other children sharing their room, whereas only 2% feared their own pain. Almost one third of the subjects stated they were interested in activities and people at the hospital. For this reason, it is extremely important to enable mothers to stay with their children ('rooming-in') and extend visiting hours to the whole day ('open-type hospital'). It is also essential to provide the pa-

tients with appropriate information about their disease and upcoming tests, and explain the difference between their and other children's diseases. It is necessary to organize daily activities involving play, studying and spending time with their peers during hospital stay. Although additional studies on the issue are warranted, it can be assumed that the help and support to the children staying at a Hospital – Children's Friend are essential for their proper functioning now and later in life, considering the fact that hospital experiences can influence their future anxiety, perception of pain and coping with hospitalization.

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## Sažetak

## OSJEĆAJI I ISKUSTVA BOLNIČKI LIJEČENE DJECE ŠKOLSKE DOBI

*M. Crnković, B. Divčić, Ž. Rotim i J. Čorić*

U radu se opisuje kako djeca i adolescenti doživljavaju bolničko liječenje i razdvajanje od roditelja, doma i njihovih svakodnevnih aktivnosti, s namjerom da se poboljša psihosocijalna kvaliteta boravka u bolnici. Navode se osjećaji i iskustva hospitalizirane djece i adolescenata te se o njima raspravlja. Najprije se govori o konceptu straha, područjima zanimanja i stavovima djece prema boravku u bolnici za vrijeme liječenja. Potom se ukazuje na metode što ih medicinsko osoblje primjenjuje kako bi pomoglo djeci nositi se s tim iskustvom. Ove metode uključuju slijedeće: 1. omogućiti roditeljima da budu u blizini djece kroz cijelo vrijeme liječenja; 2. osigurati sigurnu, vedru i prijateljsku okolinu; 3. dati djeci mogućnosti za učenje i igru. Opisuje se program naslovljen "Za dječji osmijeh u bolnici" koji se provodi u Klinici za pedijatriju Kliničke bolnice "Sestre milosrdnice". Naglašava se kako se djetetovo pozitivno sagledavanje njegove bolesti i boravka u bolnici može osnažiti pružanjem emocionalne potpore i djetetu razumljivih informacija, kao i njegovim uključivanjem u razne aktivnosti. Kroz to se ujedno može steći uvid u djetetovo samopoimanje, njegove misli i osjećaje. Uz to, raspravlja se o studiji i daju preporuke za daljnja istraživanja.

*Ključne riječi: Dječja psihologija; Dijete, hospitalizirano – psihologija; Anksiozni poremećaji – dijagnostika; Anksiozni poremećaji – psihologija; Adolescentna psihologija; Stres – psihološki; Anketni upitnici*

