

# Some Specificities of Students' Satisfaction with Hospital School

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## Abstract

*The aim of this paper is to explore some specificities of students' satisfaction with hospital school. A sample of 125 students who were patients in the Children's Hospital Zagreb was used for collecting data on overall satisfaction with hospital school, by using a modified version of "What do you really think of school?" questionnaire (Galton et al., 2003). Since the original factor validity of the scale had not been confirmed, composite variables were constructed by using particles that originally make the factors of the scales. The values of the measures of central tendency indicated a high estimate of overall satisfaction with hospital schooling. Correlation analysis did not confirm the connection between the time spent in hospital and composite variables of overall satisfaction with hospital school. However, a low negative correlation was found between the age (grade) and two composite variables (satisfaction with school;  $r=0.330$  and satisfaction with working environment;  $r=0.370$ ). The tested differences between medical condition (students can move/cannot move) and the estimate of overall satisfaction with hospital schooling were not confirmed.*

**Key words:** hospital pedagogy; hospital school; students' satisfaction

## Introduction

The term "hospital schooling" refers to providing instruction in a hospital which is in accordance with the prescribed curriculum. Hospital schooling is organized pursuant to the Act on Education in Primary Schools, Article 61, which states that primary education under regular or special conditions has to be organized for children and young adults who have been, due to health or other reasons, placed into institutions of health care or social welfare. The Convention on the Rights of the Child, Article 28, states that every child has the right to education. The first encounter with an

illness awakens emotional reactions in children and their parents (Tentor, 2000). When hospitalized, children are faced with real fears and may be insecure, confused and anxious. Their families' way of life is changing. Hospital admission primarily presupposes separation from parents, family and familiar environment. Along with the separation from parents, there are a few more reasons why staying in a hospital is stressful for a child, such as: fear of pain, fear of injuries, unknown environment, everything that happens in the hospital environment, unclear expectations and limitations, loss of the possibility to make decisions and loss of control (Wolfer & Visintainer, 1975; according to Stilinović, 2000). According to the research conducted at the Department of Pediatrics at the Clinical Hospital Center "Sestre milosrdnice", children who have been admitted to hospital usually think about their parents, home, friends and school (Crnković et al., 2009). Another problem are parents who are concerned about the child's health and transfer their anxiety to the hospitalized child. Parents who are dominant and show their fear and concern too much and who have very protective attitudes provoke anxiety in the child, preventing their spontaneity in relation to the environment, which leads to difficulties in adaptation (Stančić, 1969). For all of them, staying in hospital is a traumatic experience, even when it comes to a routine medical check-up. Once they are surrounded by unfamiliar people, blue and white scrubs, all activities around children cause and intensify the already existing pain and discomfort. However, cooperation among parents, children and medical experts can solve a lot of fears. Once it has been decided that a child should be hospitalized, it is desirable to introduce the child to the environment and explain the things that will be done there. Children express their fears through play, so it is necessary to allow the child to bring their favorite toy, blanket, pillow or something they are particularly attached to. Pediatric research has shown that ill children are twice as prone to various psychological difficulties (behavioral problems, emotional difficulties). The author states that the prevalence of frequency of difficulties is 20-25%, while in healthy children it accounts for 10-15%. Therefore, if a child has some sort of physical or mental disability, the prevalence of difficulties reaches 30-35% (Cadman et al., 1987, according to Davis, 1998). Davis (1998) believes that the most important thing is being honest with an ill child and giving them information in an understandable way, without withholding information. A child should be provided with information about their health condition and medical procedures in advance, in order to help them prepare, talk about what is going to happen and show their emotions openly (Davis, 1998).

## **Children's Reactions to Hospitalization**

When describing families with chronically ill children, Juul (2004) emphasizes that the child's self-confidence develops in accordance with the feedback received from parents, teachers, friends... The prerequisites for success of the child's psychological preparation for hospitalization are establishing trust and providing psychological help, and taking into account the presence of the parents because they are the biggest

source of support. Likewise, parents should be offered contact with psychologists, social services, religious community representatives, self-help groups... (Convention on the Rights of the Child in Hospital). Lacković-Grgin (2002), citing the observations made by Bowlby et al., classifies reactions to separation during hospitalization for the period of one to three weeks into three phases. In the first phase, the phase of protest, a child screams, cries, resists separation and demands that a loved person should be brought back. Depending on the child's age and circumstances, after a few hours or days, a child comes to a phase of desperation. This phase is characterized by withdrawal, avoiding eye-contact with people who surround him/her and depression. If the separation lasts for a long time, then comes the phase of indifference toward the loved ones and the child becomes uninterested in their visits, and starts being close to people who surround him. The process of responding to hospitalization depends on an individual case, which highly depends on the child's age. It is difficult to predict how a certain child is going to react to hospitalization, but there are specific groups that react severely to staying in hospital, and those are (Havelka, 2002):

- children with no brothers or sisters, younger children,
- children who react badly to strangers,
- antisocial children,
- children who have had some sort of traumatic experience,
- children whose mothers show excessive concern or lack of interest,
- children who have negative reaction to communicating with adults.

Each phase of development has specificities with respect to particular reactions to hospitalization (Table 1).

Table 1

*Children's reaction to hospitalization, depending on their age (Bujšić, 2005, p. 32)*

PHASE OF DEVELOPMENT	REACTION TO HOSPITALIZATION	BASIC FEARS
0-1 years old	Inability for verbal communication, irritability and tearfulness. Reduced play, lethargy and hypersensitivity to touch.	Separation from parents, loss of support, unfamiliar people. Sudden appearances.
2-3 years old	Irritability, tearfulness, mood swings, refusing food, expressing pain verbally, decreased appetite.	Dark room, big devices, masks, persons who come and go through their room, noise.
3-6 years old	Regression: babbling, diapers; aggression, nightmares, verbal reactions to pain, experiencing hospital as a punishment.	Noise, separation from parents, dark, unknown places, strangers, physical injuries.
6-11 years old	Regression: aggressive behavior; defiance of authority, withdrawal, verbalization of pain (except when expecting an injection shot).	Physical injuries, physical appearance, separation from parents, death, sleeping without parents in the room, thunder, lightning, ghosts, monsters.

The table shows that every phase of development is characterized by certain fears, while some reactions appear in multiple stages. In the last fifty years, a global trend

in hospitals around the world is a holistic approach to an ill child. The hospital environment should be as accessible and acceptable to the child as possible, and special care is also given to indications of the hospitalization. Parents are allowed to stay in the hospital with their child, there are educational and cultural facilities acceptable to children, and hospital schooling is nowadays also something considered to be normal. Sensitivity to problems caused by hospitalization is much higher today. Improved communication, interaction with an ill child, recognizing and respecting the needs of an ill child and humanization of hospital treatment is today a part of everyday life.

## Hospital School - A Specific Organization

In 1999 in the Children's Hospital Zagreb, there was a convention where the associations Union of Societies "Our children", the Croatian Nurses Society and the Croatian Society for Preventive and Social Pediatrics launched a campaign: "For the child's smile in the hospital" (<http://www.kdb.hr/index.php/18-frontpage-articles/97-bolnica-prijatelj-djece>). The road to getting a label for Children's Hospital - *A children-friendly hospital* required a series of training programs that were conducted with medical and non-medical staff in the hospital. The hospital also had to meet certain program criteria (Grgurić, 2003):

1. producing and publishing an annual plan for participation in the activity called "Children Hospital Unit - a Child's Friend";
2. hospitalization of the child only when it is the best solution for the child;
3. making the duration of a child's stay in the hospital as short as possible;
4. doctors' holistic approach to an ill child;
5. additional training for nurses who provide nursing care to an ill child;
6. applying modern medical standards during the child's stay in the hospital;
7. approaching every child as an individual with their own needs;
8. allowing an ill child to be visited by his parents daily;
9. allowing parents to participate in the care and treatment of the child;
10. providing educational, cultural and entertainment activities for the child in the hospital;
11. allowing children to choose and participate in games and activities on their own;
12. functionality of the hospital environment and its refinement.

In 2004, cooperation between the Children's Hospital Zagreb and Izidor Kršnjavi Primary School resulted in the start of hospital schooling. The aim of the hospital school is to allow children to continue their education and prevent their absence from classes in their home schools. Home schools collaborate with teachers in the hospital schools and accept the grades that a child gets while being in the hospital. In the case of long hospitalization, hospital school allows them to enroll in a higher grade without additional exams or repeating a school year. When a child is hospitalized, he/she suddenly finds him/herself in a situation he/she cannot control and feels helpless and vulnerable. The work and education of the hospital school teachers is aimed at alleviating a harmful impact of hospitalization on a child's emotional development

and frequent unpleasant experiences, in order to reduce their consequences later on in their life (Vinković, 2009). Learning is a part of everyday life. When children study and spend time in an organized and useful way just like their healthy peers, they feel less different from them. Being a student, no matter whether it is a healthy or an ill child, is a very important element in a child's self-perception. Although sometimes at first a hospitalized child enjoys not having school obligations, they soon become worried about both their academic success and their illness. They are visited by teachers daily and decide for themselves if and when they will start with classes and what subjects they will enroll in, depending on their medical condition. If a child has been operated on, has doctor's appointments or is not feeling well that day he/she does not need to attend classes. Classes are conducted with the use of modern teaching methods, tools and resources. While running the classes, teachers include children in a variety of encouraging activities and pay special attention to their emotions. A hospital teacher's approach to every child is individual. Hospital school primarily facilitates separation from family and reduces stress caused by hospitalization. It allows children to acquire subject content continuously, so that it is easier for them to return to their home school and move on to the following grade. It relieves them from stress of failing a school year and taking additional class exams (Vinković, 2009). Children can enroll in the hospital school after their first day of stay in the hospital. In the Children's Clinic there is a classroom where classes are held for children who do not have to stay in the hospital bed. The classroom is decorated with children's and teachers' work made in a variety of creative workshops and art classes and equipped with a computer, CD player and a piano. Teachers enrich the hospital premises intended for hospitalized children and celebrate holidays and important dates and run various literary and art workshops. Children especially enjoy seeing their work in hospital rooms. In that way, the classroom and hospital premises become warmer and more accessible to hospitalized children, and the work they do encourages children to socialize, communicate, play, create, and, of course, to learn. Children become familiar with their peers and spend some time together, which all contributes to socialization. Hospitalized children happily accept the hospital school.

Children who, due to their medical condition, cannot come out of their hospital beds are visited by the teachers who come to their hospital room. The role of an educator and teacher is to listen and understand the child and get to know them. A child should be given the opportunity to show feelings in a way that is suitable for their age. By observing their behavior during normal activities, keeping records on the subject which a child likes most, on how rich their vocabulary is, whether and how they get into conflict with other children, who they like to hang out with... the teachers get a complete picture of the child, his/her personality and interests and in the event of a crisis they will be better prepared to deal with it. A child shows a lot with his/her behavior while playing, or when he/she tells a story or draws something. By emphasizing communication competencies of the hospital school teacher, Mavrak (2007) describes the role of drawing as a window into the world of an ill child. The

author, referring to Lahad's view on the necessary encouragement of creativity (Lahad, 2002), applies the exercise "Vocabulary of feelings" in communicating with two patients (boys). A drawing helped the educator and the child to get to know each other better and showed whether it makes sense to ask a question "How are you?" in the hospital at all. Children with malignant diseases are particularly sensitive and given particular attention. What is particularly important, in order for a child with a chronic illness to grow into an adult with minimum consequences, is the child's predisposition, his family and environment - primarily school (Čavlek et al., 2006). A chronically ill child takes a special position in the family and community in general. Parents need to develop a positive attitude toward the disease and pass on this attitude to the child. Many of them worry whether and when to tell their child about the disease. Parents have a very important role when a child is hospitalized and teachers need to develop a good relationship with them, because sometimes they also need support. Good communication and cooperation between the parents and the teachers is in the child's best interest. PTA meetings and individual conversations greatly contribute to that. Only teamwork of all medical professionals, teachers and parents can lead to a situation in which a hospitalized child feels safe, happy and fulfilled.

## **Partnership in the Education of Hospitalized Children**

Research shows that educational work in children's hospitals minimizes the negative consequences of hospitalization, combining the success of health care and quality of life of an ill child (Irwin & Elam, 2011). When considering children's hospital education in general, the most important part of the process is a quality partnership of professionals in the fields of health and education system. Also, a very important role is played by the government bodies: The Ministry of Health and The Ministry of Education, Science and Sport. This kind of education becomes possible when professionals from these two sectors recognize the importance of interdisciplinary collaboration, and when, through various support programs, training of both medical staff and educators, development of guidelines and specific tools for the implementation of education programs for hospitalized children they work on developing hospital pedagogy (Clark & Baluch, 1997).

Also, inside the hospital it is very important to establish partnership between medical workers and experts in pedagogy - teachers:

- quality communication and trust between hospital teachers and medical workers in departments with the aim of overcoming various obstacles: introducing a teacher into the child's medical condition, planned daily checks and interventions, potential problems or particularities in establishing cooperation with the child or family;
- joint planning of daily work schedule of the ill child, respecting the department's working rhythm;
- providing hospital teachers with basic training on the process of health care of the ill child: emergencies, support in improving the child's conditions, measures for preventing the spread of hospital infections, children with special needs, etc.

- cooperation between the school management and hospital management in developing the process of humanization of children's hospitals/departments, implementation of additional educational programs for hospitalized children, planning and procurement of necessary equipment and educational materials, etc.

A positive change in the practice over the last fifteen years in the Republic of Croatia, which integrates health care and psycho-social and social support for ill children is surely represented by a humanization program of the children's departments and hospitals called "For the child's smile in the hospital" which was officially adopted in 1999. The program has been very well received from the very start, as have the quick decisions on the voluntary involvement of Croatian hospitals shown. The subject of the program is a child who, due to an acute or chronic disease, needs to spend some time in the hospital. The program requires and allows that the child is looked after by doctors, nurses, other hospital staff, parents and professional and social assistants: teachers, psychologists and social workers, who all work together and whose work is coordinated (Salihagić, Kadić, & Paravina).

This program has from the start been supported by the Ministry of Health and Social Welfare of the Republic of Croatia, and has been included in national action plans for children in Croatia, including the current National Action Plan for the Rights and Interests of Children in 2006, and will surely be included in the plan for the following period.

Of course, it is not all perfect and according to the written requests and wishes. But, significant positive shifts and progress are clearly visible, which is also a reason for this program to be continued, maintained and improved in many years to come.

This aim requires further support by the government, associations that operate in the interests of children, counseling, symposia, seminars, development and publication of achievements and best practices, new ideas and proposals on contemporary humanization of children's stay in the hospital.

## **Research Methodology**

For the purpose of this research, the approval of the Ethics Committee of the Children's Hospital Zagreb had been required and obtained. Also, all children's parents, and children who are 12 and older have signed a consent for the implementation of the questionnaire, and the research has been conducted according to the code of ethics of conducting research with children.

The respondents were 125 children treated in the clinics and institutes of the Children's Clinic Zagreb in 2013 (except the Institute of Anesthesiology, Reanimation and Intensive Care-ARIC), who were also included in the hospital school program run by Izidor Kršnjavi Primary School in Zagreb. The children filled a semantically customized version of the "What do you really think of school" questionnaire (Galton et al., 2003). In addition to the variables of socio-demographic characteristics and medical conditions (independent variables), the questionnaire included 24 items that measured total satisfaction with the hospital school. It was a five-degree ordinal scale



with values: 1-I strongly disagree; 2-I mostly disagree; 3-I neither agree nor disagree; 4-I agree; 5-I strongly agree. The reliability of the questionnaire was tested by the method of internal consistency to alpha model; Cronbach's alpha= 0.839.

The aim of the research was to explore some specificities of satisfaction with hospital school. According to the above-mentioned goals, there were no specific hypotheses because research of this type is rarely conducted. Also, according to the goal, the results of certain specificities of overall satisfaction with hospital school enable the possibility of better understanding of the respective specific educational work and, of course, its improvement.

## Research Results

Basic descriptive values are presented in Table 1.

Table 1  
Descriptive Statistics

variables	N	Range	Min.	Max.	Mean	Std. Error Mean	Mode	Std. Deviation	Skewness		Kurtosis		K-S test
	Stat.	Stat.	Stat.	Stat.	Stat.		Stat.	Stat.	Stat.	Std. Error	Stat.	Std. Error	Sig.
v1	125	4	1	5	<b>4.93</b>	.036	5	.405	-7.957	.217	72.893	.430	.000
v2	125	4	1	5	<b>1.31</b>	.079	1	.884	3.332	.217	10.766	.430	.000
v3	125	4	1	5	<b>1.26</b>	.080	1	.899	3.507	.217	11.235	.430	.000
v4	124	4	1	5	<b>4.76</b>	.050	5	.561	-3.372	.217	16.386	.431	.000
v5	125	4	1	5	<b>1.27</b>	.071	1	.797	3.258	.217	10.806	.430	.000
v6	125	4	1	5	<b>4.67</b>	.069	5	.770	-3.233	.217	11.785	.430	.000
v7	125	4	1	5	<b>4.42</b>	.090	5	1.010	-1.822	.217	2.775	.430	.000
v8	125	3	1	4	<b>1.19</b>	.052	1	.578	3.284	.217	10.700	.430	.000
v9	124	4	1	5	<b>3.53</b>	.099	3	1.100	-.362	.217	-.153	.431	.000
v10	125	4	1	5	<b>1.30</b>	.077	1	.863	3.261	.217	10.329	.430	.000
v11	125	4	1	5	<b>4.63</b>	.068	5	.757	-2.442	.217	6.346	.430	.000
v12	124	4	1	5	<b>2.22</b>	.126	1	1.400	.777	.217	-.806	.431	.000
v13	124	4	1	5	<b>4.50</b>	.076	5	.841	-1.917	.217	3.951	.431	.000
v14	123	4	1	5	<b>2.81</b>	.123	3	1.363	.030	.218	-1.105	.433	.000
v15	124	4	1	5	<b>1.45</b>	.085	1	.949	2.231	.217	4.373	.431	.000
v16	120	4	1	5	<b>3.35</b>	.109	3	1.193	-.317	.221	-.502	.438	.000
v17	123	4	1	5	<b>4.67</b>	.070	5	.775	-3.095	.218	10.884	.433	.000
v18	125	4	1	5	<b>2.06</b>	.127	1	1.424	.992	.217	-.406	.430	.000
v19	122	4	1	5	<b>1.40</b>	.081	1	.897	2.398	.219	5.475	.435	.000
v20	124	4	1	5	<b>4.38</b>	.085	5	.951	-1.579	.217	2.228	.431	.000
v21	125	4	1	5	<b>1.24</b>	.069	1	.766	3.386	.217	10.678	.430	.000
v22	123	4	1	5	<b>4.20</b>	.096	5	1.063	-1.457	.218	1.637	.433	.000
v23	125	4	1	5	<b>4.85</b>	.047	5	.524	-4.601	.217	25.889	.430	.000
v24	124	3	1	4	<b>1.22</b>	.049	1	.549	2.765	.217	7.783	.431	.000



**Legend:** V1. My teachers in hospital school are accessible; V2: I think that most of the things we do at the hospital school are for nothing, just so that we do something; V3: No one notices me in the hospital school; V4: Teachers notice what I need at the hospital school; V5: Children like me will never be good at hospital school; V6: I am usually relaxed at the hospital school; V7: I look forward to my teachers for most of the day; V8: I don't enjoy anything at the hospital school; V9: I like hospital school more than my friends do; V10: Sometimes I feel lost and lonely at the hospital school; V11: I have good progress in work; V12: I don't have many friends at the hospital school; V13: I am sure I will achieve success when taking a test; V14: I don't have that many friends at the hospital school; V15: I am afraid that I will look ridiculous in a class at the hospital school; V16: In the hospital room/ classroom, I can often work with the students I want to work with; V17: I am satisfied with my work at the hospital school; V18: I wish we could work more on the things we like rather than being told what to do; V19: Children like me don't have much luck at school; V20: Most children in the hospital room/ classroom like me; V21: I am afraid to tell my teacher I don't understand something; V22: Other children in the hospital room/ classroom include me in the things they do; V23: I like my teachers at the hospital school; V24: I am having trouble with fulfilling my school obligations.

As shown in Table 1, the values of the arithmetic mean (and in accordance to polarization; the direction of the scale) show that the students from the sample are extremely satisfied with hospital school. They are mostly satisfied with the teacher's accessibility at hospital school (V1), followed by liking teachers at hospital school (V23). After recoding, other particles also indicate a high estimate of satisfaction with hospital school. It is a left or right skewed distribution, which, according to the scale direction, represents a high estimate of satisfaction with hospital school. Similarly, the distribution (after recoding) mostly has high kurtosis, which is in accordance with a low deviation of the results from the arithmetic mean (in other words, unambiguous attitudes). The range of responses is maximum on all particles, which means that the particles cover the spectrum of possible answers well (bimodal or polymodal particles have not been confirmed). High standard errors of the arithmetic mean indicate the level of the arithmetic mean deviation of the samples from the real population arithmetic mean (in most cases the deviation is low; in other words, the obtained arithmetic mean represents the real population arithmetic mean well).

The original "What do you really think of school" (Galton et al., 2003) consists of three subscales: satisfaction with school, satisfaction with working environment and sadness and loneliness. After decoding particles (V2, 3, 5, 8, 10, 12, 15, 18, 19, 21, 24), an explanatory factor analysis was conducted in accordance with the principal axis factoring model (because the distribution was not normal) and the original factor structure of the questionnaire was not confirmed (only 7 factors were explained by the 51.86% of the variance). Although arbitrary, in the case of hyper-factorization, the Cattell scree test did not show the original number of factors (5 of them) either. For this reason, the number of factors was set according to the original structure (3) and the process of factor structure was repeated.

The suitability/appropriateness of the factorization matrix was confirmed (KMO= 0.766; Bartlett's Test of Sphericity  $\chi^2=1152.608$ ,  $df=276$ ,  $sig=.000$ ) and the prerequisite regarding the number of respondents and variables was fulfilled ( $\geq 5$ ). Then, the method of principal axis was used (promax rotation;  $kappa=4$ ). However, the determined three-factor structure did not match the original particles that made the factor solutions so the factors were not interpreted. Due to the inability to conduct

factor validity of the scale, composite variables were constructed according to the original factor structure.

Composite 1 – satisfaction with school (variables; 1, 2, 4, 7, 8, 9, 18, 23),

Composite 2 – satisfaction with working environment (variables; 6, 11, 13, 16, 17, 20, 22),

Composite 3 - sadness/loneliness (variables; 3, 5, 10, 12, 14, 15, 19, 21, 24).

Given the aim of the paper (to explore some specifics of satisfaction with hospital school), a test was made to determine if there is a connection between the time spent in hospital and the estimation of their satisfaction. The distribution of the variable “time spent in hospital” is: 52% (up to a week); 30.4% (up to two weeks); 17.6% (more than two weeks). The results of the correlation analysis are shown in Table 2.

Table 2  
Correlations; time spent in hospital and satisfaction with school

				Time spent in hospital	Composite 1	Composite 2	Composite 3	
Spearman's rho	Time spent in hospital	Correlation Coefficient			.039	-.036	.134	
		Sig. (2-tailed)			.684	.700	.157	
		N		114	114	114	114	
	Bootstrap <sup>a</sup>							
			Bias		.000	.002	-.001	.000
			Std. Error		.000	.093	.094	.095
		95% Confidence Interval						
		Lower		1.000	-.149	-.220	-.061	
		Upper		1.000	.216	.142	.313	

a. Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples

The correlation analysis was conducted by using a nonparametric Spearman's correlation coefficient with bootstrapping. Bootstrapping is a process of re-sampling in order to “enhance” the distribution and obtain more precise, accurate and reliable results. The process of re-sampling reduces the sample to population, meaning that the sample is now considered a population from which new samples are derived. Bootstrapping allows us to draw conclusions about the characteristics of the population based on the sample (rather than on parametric assumptions about the respective population).

As can be seen in Table 2, there were no statistically significant correlations between the composite variables of satisfaction with hospital school and time spent in hospital. This indicates that only the time spent in hospital is not connected with children's overall satisfaction with the hospital school.

Also, given the specificity of the hospital school, we have conducted a test to determine whether there are differences between the medical condition (children can move/children lay in bed) with respect to the estimation of overall satisfaction with hospital school (on composite variables). The independent variable distribution

is: I need to lie in bed permanently; I cannot move (53.7%) I can move and engage in activities (46.3%).

The difference was tested by the t-test (bootstrapped) for independent samples. The results of the t-test are presented in Table 3.

Table 3  
Bootstrap for Independent Samples Test

		Mean Difference	Bootstrap <sup>a</sup>				
			Bias	Std. Error	Sig. (2-tailed)	95% Confidence Interval	
						Lower	Upper
composite1	Equal variances assumed	.11554	-.00222	.09762	.244	-.07225	.31353
	Equal variances not assumed*	.11554	-.00222	.09762	.242	-.07225	.31353
composite2	Equal variances assumed	.06538	.00003	.09602	.496	-.13763	.24521
	Equal variances not assumed*	.06538	.00003	.09602	.500	-.13763	.24521
composite3	Equal variances assumed	.10356	.00005	.07585	.168	-.04629	.25183
	Equal variances not assumed*	.10356	.00005	.07585	.169	-.04629	.25183

a. Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples

\* Welch test

As it is evident from the t-test results (bootstrapped), there is no statistically significant difference between the medical condition (children can move/cannot move) and estimation of overall satisfaction with hospital school. The prerequisite for the homogeneity of the variance was met (Levene's test;  $\geq 0.05$ ) so the results of the Welch test were not interpreted (the assumption of homogeneity of the related subsamples variances).

Finally, we were interested in finding out if there is a correlation between age (grade) and overall estimation of satisfaction with school. The correlation was tested by a non-parametric bootstrapped Spearman correlation coefficient. The results of the correlation analysis are shown in Table 4.

Table 4  
Correlations (Class-composites)

		grade	Composite 1	Composite 2	Composite 3		
Spearman's rho	Age (grade)	Correlation Coefficient	1.000	<b>-.330**</b>	<b>-.370**</b>	-.147	
		Sig. (2-tailed)		.000	.000	.119	
		N	114	114	114	114	
		Bootstrap <sup>a</sup>	Bias	.000	-.006	.004	.002
			Std. Error	.000	.089	.087	.094
	95% Confidence Interval	Lower	1.000	-.504	-.512	-.322	
		Upper	1.000	-.158	-.176	.042	

\*\* Correlation is significant at the 0.01 level (2-tailed).

a. Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples

As it can be seen in Table 4, there is a low negative statistically significant correlation between age; i.e. grade, that student is in and satisfaction with school (composite 1) and satisfaction with working environment (composite 2). Since the correlation is negative, it means that as the age increases (higher grade), the satisfaction with hospital school decreases.

## **Conclusion**

Hospital school is a specific phenomenon of educational work that has not been sufficiently researched yet. Accordingly, the conducted study indicates that patients in the sample (students) are generally satisfied with the school in hospital. Such a result, bearing in mind specific conditions and organization of their hospital stay, and from the standpoint of satisfaction with the classes, is optimistic. The correlation analysis has not confirmed the connection between the time spent in the hospital and composite variables of overall satisfaction with school in hospital. However, there is a low negative correlation between the age (grade) and two composite variables (school satisfaction;  $r = - 0.330$  and satisfaction with working environment;  $r = - 0.370$ ).

Therefore, the time spent in hospital does not reflect on children's estimation of overall satisfaction with hospital school, which indicates a continuous quality of classes, despite the long duration of the treatment. The determined negative correlation between age and two composite variables of school satisfaction indicates that as the respondents' age increases, their satisfaction with school is lower, which is common in general among the population of students in primary schools. The tested differences between the medical condition (children can move/cannot move) and estimation of overall satisfaction with school in hospital were not confirmed.

The hospital school from the sample is an example of what the educational work should look like in specific hospital settings. The above shown research results indicate that hospital conditions (time spent in school, status of mobility: can move/cannot move) do not decrease their high estimate of overall satisfaction with school in hospital.

Today, when school is facing a challenge of changes (redefining; educational, methodological principles, methods, forms of work, attitude towards learning and students), this is a shining example of what school should be like, or in other words, school which is tailored to the needs of students.

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# Neke specifičnosti zadovoljstva učenika školom u bolnici

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## **Sažetak**

*Cilj rada jest istražiti neke specifičnosti zadovoljstva školom u bolnici. Na uzorku od 125 učenika, pacijenata Klinike za dječje bolesti Zagreb, koji su uključeni u program škole u bolnici, prikupljeni su podaci o ukupnom zadovoljstvu školom u bolnici, a s pomoću modificirane verzije upitnika Što stvarno misliš o školi (Galton i sur., 2003). Budući da nije potvrđena originalna faktorska valjanost skale, konstruirane su kompozitne varijable s pomoću čestica koje originalno čine izvorne faktore skale. Iz vrijednosti mjera centralne tendencije indicira se visoka procjena ukupnog zadovoljstva školom u bolnici. U sklopu korelacijske analize nije potvrđena povezanost između vremena provedenog u bolnici i kompozitnih varijabli ukupnog zadovoljstva školom u bolnici, no potvrđena je niska negativna korelacija između dobi (razreda) i dvije kompozitne varijable (zadovoljstvo školom;  $r=-0,330$  i zadovoljstvo radnim okruženjem;  $r=-0,370$ ). Testirane razlike između zdravstvenog statusa (pokretan/nepokretan) i procjene ukupna zadovoljstva školom u bolnici nisu potvrđene.*

**Ključne riječi:** bolnička pedagogija; škola u bolnici; zadovoljstvo učenika.