

## Original Article

## Mothers' Participation in the Hospitalized Children's Care and their Satisfaction

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### Abstract

**Background:** Support given to children by their families is the most significant factor that determines children's reactions against health problem and nursing care. Family centered care, is a practice that increases the quality of the services and affects the parents' satisfaction positively.

**Aims and objective:** This study was conducted to the relationship between parent satisfaction and family centered care perception, parent participation and demographic characters.

**Desing:** This is a descriptive study.

**Method:** The participants in this study were 285 parents. Data were collected using the Family Descriptive Questionnaire Form, Pediatric Quality of Life Inventory Health Care Satisfaction Scale, and Family-Centered Care Scale. Data were analyzed using descriptive statistics, independent t-test, one-way ANOVA, Pearson correlation analysis.

**Result:** The mean age of the mothers was found as  $28.49 \pm 5.84$  years. Pediatric Quality of Life Inventory Health Care Satisfaction Scale and Family-Centered Care Scale scores were found to increase at significant levels in the cases that the mothers were informed about the health care activities for their children, they were shown how to do these activities, and they were given feedback ( $p=0.000$ ). A strong positive relationship ( $r_s=0.730^{**}$ ) was obtained between the mothers' Pediatric Quality of Life Inventory Health Care Satisfaction Scale and Family-Centered Care Scale scores ( $p<0.001$ ).

**Conclusion:** There is a positive relationship between parent's health care satisfaction and family centered care. So, the nurses should do their best to involve the parent in care of their children in accordance family centered care principles.

**Keywords:** family centered care, satisfaction, participation, children, parent.

### Introduction

The children who receive inpatient treatment experience various social, psychological and developmental problems due to diagnosis and treatment interventions and the change of social environment (Cavusoglu, 2011). In the adaptation process of the children into hospital setting and treatments; family support is a key issue. Support given to children by their families is the most significant factor that determines children's reactions against the health problem and nursing care (Toruner & Buyukgonec, 2003; Hackenberg

et al., 2003, Sapountzi-Krepia et al., 2006). Parents who are regularly informed by health care personnel of the health status and are included in the care undergo less stress and their children adapt into hospital settings more easily (Inanc Yazgan, 1999).

Family-centered care (FCC) is an approach to the planning, delivery, and evaluation of health care that is grounded in mutually beneficial partnerships among health care providers, patients, and families. Family-centered practitioners recognize the vital role that families

play in ensuring the health and well-being of infants, children, adolescents, and family members of all ages (Hallstrom, 2002; American Arango, 2011; Academy of Pediatrics, 2012).

Studies and experience increasingly show that when health care administrators, providers, and patients and families work in partnership, the quality and safety of health care rise, costs decrease, and provider and parent satisfaction increase (American academy of pediatrics, 2012)

The level of parent's satisfaction with health care can be used as a good proxy variable for important aspects of quality of care (Ammentorp et al., 2006).

According to the literature, nurses' communication with the parents in pediatric inpatient units is a key factor that contributes to parents' perceptions of their child's care. In a survey reported that the most predictive indicators of overall satisfaction were questions about the level of collaboration between the nurses and parents (Marino & Marino, 2000). So, Family-centered care should integrate in hospitals, clinics, and community settings, and of care by pediatric nurses.

The studies done indicate that parents are willing to join their children's care in line with family centered care (FCC) principles (Inanc Yazgan, 1999; Schaffer *et al.*, 2000 ; Lima *et al.*, 2001; Boztepe, 2009; Kuzulu et al., 2011). Parents state that they want to accompany their children, to join the care and decision-making process for their children actively, to be informed of health status, diagnosis and treatment of their children in case their children are hospitalized.

As for the nurses; they state that it is necessary for the families to join the care of the children but this increases their work-burden and causes time-loss (Bruce & Ritchie, 1997; Petersen et al., 2004, Sapountzi-Krepia et al., 2006).

Family centered care philosophy is based on recognition of the family continuity in the child's life and providing active participation of the family for health related decisions about their children. Participation of the families in the care is a practice that increases the quality of the services and affects the parents' satisfaction positively (American academy of pediatrics 2012; Arango, 2011; Hallstrom, 2002).

The concept of family-centered care along with partnership of a professional team increases the

well-being of the child and brings quality standardization to child care. Family-centered care is the best approach for fulfilling the needs and expectations of parents as well as children in a hospital environment (Erdim et. al., 2006; Tarını et. al., 2007).

It is thought that in our country FCC is not performed enough by the health care personnel although they know FCC. The studies conducted suggest that parents are not informed, failed to address the concerns and showed they could not participate in the treatment decision process ( Erdim et. al., 2006; Tarını et. al., 2007; Boztepe, 2009; Kuzulu et al., 2011)

This study aims to explore the relationship between overall satisfaction and family centered care, parent participation and demographic characters.

## Methods

This was a descriptive study. Data were collected from a tertiary children's hospital. This hospital is the first and only medical specialist hospital for children and adolescents in city. The sample consisted of 285 parents who were recruited using a convenience sampling method. Power analyses were conducted using the data obtained. The study was completed with 285 mothers who met the inclusion criteria. 10 patients to whom pre-test was done were not dropped from the sample. In the study were included the mothers who stayed at the pediatric clinic for at least two days and did not have any communication problems. The data were gathered only once from the patients who were re-hospitalized. Data collection tool, were administered by the researcher using a face to face interview technique. The interviews lasted 15-20 minutes at the patient rooms. Data were gathered through a Family Descriptive Questionnaire Form by the researcher after conducting the relevant literature screening, Pediatric Quality of Life Inventory Health Care Satisfaction Scale (PedsQL HCSS), and Family-centered Care Scale (FCCS).

## Measure

### Information Form of Descriptive Characteristics:

The form included questions asked to get information about socio-demographic data, children and parent's age, education level, economic status, previous hospital experience,

the child's diagnosis, the practice of mothers' participation of the hospitalized children's care.

### Family centered care survey (FCCS)

The Family Centered Care Survey was developed by Shields and Tanner (Shields & Taner, 2004.) in 2004 (Cronbach's  $\alpha = 0.72$ ) The Turkish translation, validity test and reliability test of the scale were performed by Dogan (Cronbach  $\alpha = 0.87$ ) (Dogan, 2010).

The family-centered care survey is four Likert-type (Never: 1 point Sometimes: 2 points Often: 3 points, Always: 4 points). Survey is consisted of 20 questions. The survey consists of family-centered care items of three sub-groups "respect, cooperation and support". Total score varies between 20 and 80. A total score indicates the level of implementation of family-centered care. In this study, Cronbach's calculated  $\alpha = 0.73$ .

### PedsQL health care satisfaction scale

PedsQL was developed by Varni (Varni, 2000) in 1999 (Cronbach's  $\alpha = 0.96$ ) (Cronbach). The Turkish translation, validity test and reliability test of the scale were performed by Ulus (Cronbach  $\alpha = 0.92$ ) (Ulus & Kubilay, 2012).

The survey consists of is five Likert-type. PedsQL Health Care Satisfaction Scale in the statements; never satisfied = 0, sometimes satisfied = 1, often satisfied = 2, almost always satisfied = 3, always satisfied = 4 and no practice = U / Y (It can't get health care, depending on the age of the children) is rated. Total score varies between 0 and 100.

A total score indicates the level of implementation of satisfaction. In this study, Cronbach's calculated  $\alpha = 0.91$ .

### Ethical approval

I'm declare that we have no competing interests. All procedures performed in studies involving human participants were in accordance with the ethical standards of the the Institutional Review Board of Erciyes University and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study

### Statistical Analysis

For the analysis of the data; such descriptive statistical methods as percentages, means were used. Data were analyzed using Data were

analyzed using descriptive statistics, independent t-test, one-way ANOVA, Pearson correlation analysis.

### Limitations

Research was conducted in a hospital in the city center. Research results can be generalized only this hospital.

### Result

The findings indicated that 24.6 per cent of the children were 0 to 30 months old, 39.6 per cent had been hospitalized due to a respiratory system disorder, and 48.8 were found to have had prior hospital experience. The children's mean duration of stay in hospital was calculated as  $3.77 \pm 1.99$  days. All the participants of the study were made up of mothers. The findings revealed that 50.5 per cent of the mothers were graduates of primary school, 95.4 per cent of them did not work, and 45.3 per cent lived in the city centers.

According to the findings of the study, the most common practices that the mothers participate in are feeding the child orally (%91.6), changing the children's clothes (%89.1), accompanying the child in the practices that involve pain (%77.5) (Table 1). PedsQL HCSS and FCCS scores were found to increase at significant levels in the case that the mothers are informed about the health care activities provided for their children, they were shown how to do these activities, and they are provided feedback as a follow-up to the care activity ( $p = 0.000$ ) (Table 2). It was determined that the mothers who had a job, a high school degree and over, and who lived in the cities reported significantly lower mean PedsQL HCSS and FCCS scores than their counterparts (Table 3). A strong positive relationship ( $r_s = 0.730^{**}$ ) was obtained between the mothers' PedsQL HCSS and FOCS scores at a statistically significant degree ( $p < 0.001$ ). It was observed that the more the mothers were involved in the care of their children, the higher their satisfaction with the health care was (Table 4).

### Discussion

Studies on pediatric nursing emphasize that mother-child bond should be maintained during the time when the child is hospitalized (Lima et al., 2001; Hallstrom et.al, 2002; Kuzulu et al., 2011;).

In order to provide a better care and increase the parents' satisfaction with the care given, the

parents should take part in the care of their children from the moment they are admitted to the clinic until they are dispatched from the hospital.

**Table 1. Distribution parents' practice care activity (n=285)**

<b>Maintenance Activities *</b>	<b>Sayı</b>	<b>%</b>
The oral intake of children	261	91.6
Changing clothes of the child	254	89.1
Besides being painful procedures in children	221	77.5
Keep the child during the examination	220	77.2
Giving oral medication	161	56.5
Providing room layout	158	55.4
Monitoring of breathing of the child	149	52.3
The drug delivery with mask	102	35.8
Changing the sheets of Children	84	29.5
The drop in the eyes or ear	68	23.9
Do postural drainage	60	21.1
Making enema	37	13.0

\* Multiple answers were given.

**Table 2. According to Mothers were informed prior to the child-care activity FCCS and PedsQL HCSS's score of mean distribution (n=285)**

Categories	FCCS Mean (SD)	Test	p	PedsQL HCSS Mean (SD)	Test	p
<b>Informed prior to the child-care activity</b>						
Informed <sup>1</sup>	60.9(9.0)			74.9(21.4)		
Partially informed	50.4(13.0)	F=19.526	.000	50.2(24.7)	F=23.230	.000
Not informed	50.0(10.1)			47.9 (23.5)		
<b>Demonstrated while doing the activity</b>						
Demonstrated <sup>1</sup>	61.4(9.0)			75.1(22.1)		
Partially demonstrated	51.4(9.8)	F= 9.659	.000	49.4(23.3)	F= 8.665	.001
Not demonstrated	57.4(10.3)			67.8(23.9)		
<b>Observed while doing the activity</b>						
Observed <sup>1</sup>	62.2(8.6)	t=6.073	.000	77.2(20.3)	t=8.893	.000
Unobserved	57.2(10.3)			66.3(24.9)		
<b>Given feedback</b>						
Gave feedback <sup>1</sup>	62.5(8.5)			77.9(19.8)		
Partially gave feedback	56.6(13.1)	F= 10.404	.000	57.2(26.3)	F= 9.174	.000
Didn't give feedback	57.3(10.1)			66.9(24.79)		

<sup>1</sup> This group differs from other F= one-way ANOVA t= independent t-test

**Table 3. According to mothers and children's Identifiable Characteristics FCCS and PedsQL HCSS's score of mean distribution (n=285)**

Categories	FCCS Mean (SD)	Test	p	PedsQL HCSS Mean (SD)	Test	p
<b>Children age</b>						
0-30 day	60.4 (9.9)			74.8(24.3)		
31day-12 month	59.5 (9.7)			71.3(20.8)		
13 month-3 year	57.1 (9.4)	<i>F</i> =3.235	.007	66.1(21.7)	<i>F</i> =2.876	.015
4-6 year	57.9(10.6)			65.3(29.5)		
7 year and older <sup>1</sup>	62.2(8.7)			78.2(20.5)		
<b>Children sex</b>						
Female	60.4(9.8)	<i>t</i> =0.047	.828	71.7(23.4)	<i>t</i> =.088	.767
Male	59.0(9.8)			71.5(23.4)		
<b>Mother age</b>						
17-25	59.5 (9.2)	<i>F</i> =3.776	.024	68.6 (23.2)		
26-35	58.6 (10.1)			71.1 (24.3)	<i>F</i> =5.513	.004
36 and older <sup>1</sup>	64.0 (9.4)			83.2(16.0)		
<b>Mothers Educational Status</b>						
Elementary school	61.5 (9.5)	<i>F</i> =7.613	.001	78.1(19.9)	<i>F</i> =18.539	.000
Middle School	59.2 (8.9)			70.5(22.1)		
High school and <sup>1</sup>	55.8(10.4)			57.9(26.3)		
<b>Mothers work status</b>						
Not working	59.7 (9.9)	<i>t</i> =1.655	.199	72.4(23.0)	<i>t</i> =.896	.345
Working	56.7 (7.7)			54.0(25.5)		
<b>Number of Children</b>						
1	58.5 (9.7)			64.2 (23.5)		
2	58.9 (9.2)	<i>F</i> =1.975	.141	71.4(23.8)	<i>F</i> =6.449	.002
3 and more <sup>1</sup>	61.2 (10.5)			77.1(121.4)		
<b>Settlement</b>						
City center <sup>1</sup>	58.0(10.3)			67.5(24.7)		
Town	59.8(8.9)	<i>F</i> = 4.583	.011	74.7(22.3)	<i>F</i> =3.767	.024
Village	62.6(9.6)			75.6(20.8)		

<sup>1</sup> This group differs from other *F*= one-way ANOVA *t*= independent t-test



**Table 4. The Association between the mothers' PedsQL HCSS and FCCS scores (n=285)**

Scales	Family Center Care Survey	
	$r_s$	$p$
<b>PedsQL Health Care Satisfaction Scale</b>	0.730**	0.001

$r_s$ =pearson Correlation \*\* Correlation is significant at 0.01 level(2-tailed)

In the related studies conducted previously, it was determined that the parents mainly participated in the activities involving feeding and provision of hygiene for their children (Lima *et al.*, 2001; Petersen *et.al*, 2004; Tarım *et al.*, 2007; Boztepe, 2009; Weiss *et al.*, 2010). In this study, similar results were obtained, and feeding orally (%91.6) and changing the children's clothes (% 89.1) were the most common among all health care activities provided for the children (Table 1).

In addition, it was observed that the mothers took part in the treatment practices such as oral feeding of the children (56.5%), giving medication with masks (35.8%), and giving anal medication (13%) (Table1). Mothers are not normally expected to perform these tasks in the clinical environment. In order for such applications to be worthwhile, it is of great significance to support the mothers, determine the things they are deficient in, and compensate for such deficiencies. According to the findings of this study, over half of the participating mothers stated that they were not observed or given feedback by the nurses (Table 2) during or after the task they accomplished. In parallel with these findings, Lima *et al.* (2001) reported in their study that the nurses were insufficient in the provision of support, supervision, and control in ensuring the parents' sound involvement in the care of their children.

In addition, a statistically significant relationship was observed between the mean PedsQL HCSS and FCCS scores according to whether the mothers were informed prior to the child-care activity, observed while doing the activity, or

given feedback as a follow-up to the task/activity fulfilled ( $p<0.000$ ) (Table 2). The findings indicated that the mothers' satisfaction increased in cases when they were informed about the care of their children and when the nurses established prompt and continuous communication with them.

The findings also demonstrated that there is a significant relationship between the mothers' age, education, place of residence, and the number of children they had and their PedsQL HCSS and FCCS scores ( $p<0.05$ ) (Table 3). The mothers with a high school degree and over, and those who lived and worked in the cities reported lower mean scores than their counterparts ( $p=0.000$ ). The findings indicate that as the mothers' educational level increase, they demand more information about the diagnosis and the treatment of their children, become more willing to participate in the care of their children, and hold higher expectations from the care provided for their children. As a result of the high expectations, it is thought that these mothers' satisfaction scores were lower since the degree to which their expectations were met was insufficient. Some other relevant studies support these findings (Ulus & Kristensson-Hallstroè, 1999; Ammentorp *et al.*, 2005; Cooper *et al.*, 2007; Hong *et al.*, 2008; Williams *et al.*, 2011; Kubilay, 2012; Conk *et al.*, 2013; Reuter-Rice & Bolick, 2012)

A statistically meaningful relationship was observed between the child's age and the mean FCCS scores ( $p<0.05$ ) (Table 3). Mothers of the children aged 0-7 were found to report higher

mean FCCS scores than the other groups. This result may be attributed to the fact that the parent's need for health staff becomes lower as the children's age and thus their dependence on their parent decreases. In a study conducted by Kristensson-Hallstrom (1999), with the aim of investigating the factors affecting the parent's involvement in the care of their hospitalized children, it was determined that the parents who had children aged one and below demonstrated more desire to participate in the care of their children.

The purpose of ensuring the parent's involvement in the care of their children is to develop mutual relationships among the health staff, the patients, and their families. This mutual relationship is believed to play a significant role in improving the quality and the safety of the health care as well as the parent's satisfaction with the care (Kristensson-Hallstroè, 1999; Sahin et al., 2005; Coban et al., 2007; Asilioglu et al., 2009; Tanrı & Kuguoglu, 2012). Kristensson-Hallstrom (1999) reported that the parents felt safer for themselves and on behalf of their children when they got involved in the care of them. This led them to participate even more in the care of their children by receiving the supervision needed. A statistically significant relationship was observed between mothers PedsQL HCSS and FCCS scores  $p=0.000$  (Table 4). As the mothers' FCCS scores increase, their HCSS scores also increase. In other words, the more they are involved in the care of their children, the higher their satisfaction levels are.

### Conclusion

As a conclusion, it can be easily suggested that there is a positive relationship between the mothers' involvement in the care of their children and their satisfaction with it. Therefore it is a very significant task on the part of the nurses to ensure that the mothers acquire the information and the skills needed for the care of their children and get involved in the care given in hospitals.

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### References

American Academy of Pediatrics. Committee on hospital care (2012) Family-centered care and pediatrician's role. *Pediatrics* 129, 394-404.

- Ammentorp J, Mainz J & Sabroe S (2005) Parents' priorities and satisfaction with acute pediatric care. *Arch Pediatr Adolesc Med* 159, 127-131.
- Arango P. (2011) Family-centered care. *Academic Pediatrics* 11, 97-99.
- Asilioglu N, Akkus T & Baysal K (2009). Investigation of parents' satisfaction and the causative factors in pediatric emergency department. *Turkish Journal of Emergency Medicine* 9, 65- 72.
- Boztepe H (2009) Examination of a Family Centered Care Practice at the Children's Units of a University Hospital. *Hacettepe University Faculty of Health Sciences Nursing Journal*, 11-2
- Bruce B & Ritchie J (1997) Nurse's practices and perceptions of family-centered care. *Journal of Pediatric Nursing* 2, 214-222.
- Cooper LG, Gooding JS & Gallagher J (2007) Impact of a family-centered care initiative on NICU care, staff and families. *Journal of Perinatology* 27, 32-37.
- Cavusoglu H. (2011) ) Child Health Nursing. Volume 1, Ankara: System Ofset publishing
- Coban M, Can G & Unuvar E (2007) The Evaluation of the Satisfaction of Parents Using a New Scale. *J Child* 7(4): 247-254 .
- Conk Z, Basbakkal Z & Yardimci F (2013) 2013An overview of child health, in: Conk Z, Basbakkal Z, Balyilmaz H, Consolidated B. (Eds). *Pediatric Nursing*, Academician Bookstore, Ankara 41-45.
- Dogan B (2010) The Opinions And Expectations Of Nurses, Physicians And Parents On The Participation Of Parents In The Care Of The Hospitalized Child Graduate Thesis, Baskent University Institute of Health Sciences, Ankara
- Erdim L, Bozkurt G & İnal S (2006) The research of affected situation of mothers whom children in hospital. *Journal of Atatürk University School of Nursing* 9, 36-43.
- Hackenbery M, Wilson D & Kline W (2003) Wong's Nursing Care of Infants and Children. USA. Mosby.
- Hallstrom I, Runesson I & Elander G (2002) Observed parental needs during their child's hospitalization. *Journal of Pediatric Nursing* 17, 140-148.
- Hong SS, Murphy SO & Connolly PM (2008) Parental satisfaction with nurses' communication and pain management in a pediatric unit. *Pediatric Nursing* 34, 289-293.
- Inanc Yazgan B (1999) Psychological Approach to Children and Their Families with Physical Injury and Chronic Illness. Eksi A. (Ed). I am Patient, Child Health and Psychosocial Aspect of Diseases (page 644). Istanbul. Nobel Medical Bookstores.
- Kuzulu TA, Kalinci N & Topan AK (2011) Examination of a Family Centered Care Practice at the Children's Units of a University Hospital.. *Firat University Medical Journal of Health Sciences*, 6, 2-9



- Kristensson-Hallströè I (1999) Strategies for feeling secure influence parents' participation in care. *Journal of Clinical Nursing* 8, 586-592.
- Lima G, Rocha MM, Scocchi SG & Callery P (2001) Involvement and fragmentation: A study of parental care of hospitalized children in Brazil. *Pediatric Nursing* 27: 559-564.
- Marino, B. L. & Marino, E. K (2000) Parents' report of children's hospital care: What it means for your practice. *Pediatric Nursing* 26, 195-198
- Petersen MF, Cohen J & Parsons V (2004) Family-centered care: do we practice what we preach. *JOGNN* 33, 421- 427.
- Reuter-Rice K & Bolick B (2012) Pediatric Acute Care: A Guide for Interprofessional Practice, Library of Congress Cataloging-in-Publication, USA, 59-62.
- Sapountzi-Krepia D, Roupa Z, Gourni M, Mastorakou F, Vojiatzi E, Kouyioumtz Ei, Van Shell S. (2006). A Qualitative Study on the Experiences of Mothers Caring for Their Children with Thalassemia in Athens, Greece. *Journal of Pediatric Nursing*, 21, 2: 142-152
- Schaffer P, Vaughn G, Kenner C, Donohue F & Longo A (2000) Revision of a parent satisfaction survey based on the parent perspective. *Journal of Pediatric Nursing*, 15, 373- 379.
- Shields L & Taner A (2004) Pilot study of a tool to investigate perceptions of family- centered care in different care settings. *Pediatric Nursing*, 30,189-196.
- Sahin TK, Bakici H, Bilban, B Dincer S. Yurtcu M. & Gunel E (2005) Sahin TK, Bakıcı H, Bilban, B Dincer S. Yurtcu M. & Gunel E (2005) Investigation of hospitalized patients' relatives' satisfaction in Pediatric Surgical Clinic of Meram Medical Faculty. *Journal of General Medical* 15,137-142.
- Toruner KE & Buyukgonec L (2003) Child Health Basic Nursing Approaches. Ankara. Goktug Publishing.
- Tarım BA, Christakis DA & Lozano P (2007) Toward family-centered inpatient medical care: the role of parents as participants in medical decisions. *Journal Pediatr* 15, 690-695.
- Tanır MK & Kuguoglu S (2012) Turkish Validity and Reliability of Pediatric Quality of the Life Inventory (PedsQL) Health Care Satisfaction Hematology/Oncology Module Parents Form. *Ankara Journal of Health Services* 11, 13-23.
- Ulus B & Kubilay G (2012) Ulus B & Kubilay G (2012) Turkish adaptation of the PEDSQL health care parent satisfaction scale. *Acibadem University Journal of Health Sciences* 3, 44-50.
- Varni J.W (2000) Development of the pediatric hematology/oncology parent satisfaction survey. *Children's Health Care* 29, 243-255.
- Weiss S & Goldlust E, Vaucher YE (2010). Improving parent satisfaction: An intervention to increase neonatal parent-provider communication. *Journal of Perinatology* 30, 425-430.
- Williams G, Pattison G, Mariathas C, Lazar J, & Rashied M (2011) Improving parental satisfaction in pediatric orthopaedics. *J Pediatr Orthop* 3, 610-615.