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RESEARCH ARTICLE

Effect of participatory care on the satisfaction of parents of children admitted to the children's wards: Clinical trial study

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ABSTRACT

Background: Family participation in the care and treatment of a patient child causes a sense of safety and satisfaction in the child and his or her family. One of the most important duties of nurses, along with providing standard care, is helping the family to participate in care. **Aims and Objectives:** The purpose of this study was to study the effect of participatory care on the satisfaction of parents of children admitted to the children's wards. **Materials and Methods:** In this clinical trial study, 120 mothers of children admitted to the children's wards of Besat Hospital of Hamedan were selected randomly through random numbers table. 60 mothers in intervention group (participatory care) and 60 mothers were placed in the control group (routine care). Parental satisfaction was measured and compared by pediatric family satisfaction questionnaire. Data were analyzed by SPSS version 22 software. **Results:** After the intervention, pediatric satisfaction of the parents of children in children's wards and all aspects of parental satisfaction including welfare services, medical services, and nursing care in the intervention group was significantly higher than the control group ($P < 0.05$). **Conclusion:** Implementation of participatory care program was effective in increasing the pediatric satisfaction of parents admitted to children's ward.

KEY WORDS: Child; Participatory Care; Family-based Care; Parental Satisfaction

INTRODUCTION

When a child is hospitalized, almost all parents show relatively clear responses to his or her illness and hospitalization. They blame themselves for why their early symptoms have not been diagnosed or delayed in their treatment or have not prevented his illness, which makes to see themselves unable.[1] Parents are the inevitable element of care for hospitalized children.[2] Providing the support and information needs of parents in the hospital environment during child care, awareness of the treatment plan, teaching parents, and using their participation are of the most important needs of parents which calls for educational-support relationship between treatment personnel and parents, especially nurses, during care.[3] To provide optimal care, it is necessary to establish a therapeutic link between the treatment team members, the family, and the patient.[4] Appropriate treatment communication can be an important source of support for the family, and vice versa, ineffective communication can disrupt the overall health of the family.[5-8] One of the duties of a nurse is to provide care, interact with family members, and make positive changes in the family by utilizing the individual's power and strength

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of each member to care for caring child. By continuing this relationship, parents play a fundamental and positive role in deciding their crucial and decisive affairs.[4] The main mission of hospitals is to provide quality care for patients, meeting their needs, expectations, and satisfying them.[9] Patient satisfaction is considered as a reliable and credible tool for assessing the quality of care. Regarding the childhood situation, the parents support the child in the healthcare system, so they represent the views of their child.[10] Patient satisfaction is one of the most important indicators in improving the quality of care.[11] Satisfaction means that patient positive judgment about quality of care and met their expectation. The more patients are more satisfied the more consistent with the treatment and the more effective collaboration in the care program. Investigation of the patient satisfaction can improve patient satisfaction by providing quality care information and can be used to improve management plans and identify staff performance.[10] Satisfaction of the provided services evaluates the impact of the service provided. Researchers have reported that specific components of the family-based participation approach have a direct relationship with parental satisfaction with care.[12] Caro *et al*. found that the children achieved the necessary functional skills as a result of a family-based program and family interaction with the health professional team and parents had a high level of satisfaction.[13] Van Riper said that mothers of Down syndrome children expressed more satisfaction with the provision of care provided with family-based services.[14] The study by Akbarbegloo *et al*. showed that nurses' viewpoints are the most important nursing support for family-based care in terms of qualitative and emotional care.[15] DeChillo *et al*. reported that the parental satisfaction of children with severe emotional disturbances increases as a result of services toward a family-based approach.[16] Karami Moneghi *et al*. (2014) showed that the participation of the family in care can improve the physical and mental health of the patients, reduce the cost of treatment, and increase the quality of life of the patients.[17] Several studies have shown that there are many challenges and inadequacies in assessing patients' satisfaction with hospital care.[18] Family participation in childcare delivery is a useful medical link between the nurse and the child's parents, a better understanding of nursing care, and a sense of usefulness in nurses and parents. It is seems that there is so much benefit in family participation in childcare delivery as mentioned above, but its effects such as satisfaction of parents are unknown in this area. Hence, this study was performed to determine the effect of participatory care on the satisfaction of parents of children admitted to the internal children's wards.

MATERIALS AND METHODS

Participants

In this clinical trial study, sampling was done using simple random sampling method. The minimum sample size of 50 subjects was determined in each of the groups according to the results of the study of Aein *et al*.[19] with 95% confidence and 80% power, as well as the expected difference of 5 units for mean satisfaction score and variance of 81 = 92. Afterward, for the probability of sample/data loss, the sample size of 60 parents was determined in each group, and a total of 120 parents of children in the internal pediatric wards of the Besat Hospital in Hamedan were entered randomly to the study using random numbers table. In both groups, all samples which had all inclusion criteria were registered in the study; these criteria included having a minimum level of reading and writing for caregiver parent, the lack of crisis or major stress for caregiver parent during the past year, the lack of family members in the treatment team, the lack of serious physical or mental disorders in caregiver parent, and the willingness of caregiver parent to participate in the study.

Data Collection Tools

Data collection tools consisted of three parts: Descriptions and guidance, demographic data of the child care provider, and the pediatric family satisfaction questionnaire (PFSQ). The reliability of this questionnaire has been confirmed by the study on 327 parents of children admitted to the pediatric wards of the North Carolina Children's Hospital and the scientific reliability was estimated to be 83% using the Cronbach's alpha coefficient.[10] In Pourmovahed *et al*., validity and standardization of the questionnaire were approved and its reliability was determined using the Cronbach's alpha coefficient (92%) in Persian version.[12] The PFSQ questionnaire includes three parts of the medical care (9 items), nursing care (11 cases), and welfare services (8 items) which are graded from 1 to 5 in terms of Likert scale. The maximum score in welfare services is 40, in the nursing care sector 55, and in the field of health care 45. The minimum patient satisfaction score is 28 and the maximum score is 140. A score of <70 is associated with dissatisfaction, 70–110 satisfaction, and over 110 complete satisfaction.[12] In this study, validity definite by panel of experts and reliability of the questionnaire was confirmed Cronbach's alpha of 79%.

Procedures

In this study, after taking the introduction letter from the Faculty of Nursing and Midwifery of Hamedan University of Medical Sciences. In this study, after taking the introduction letter from the Faculty of Nursing and Midwifery of Hamedan University of Medical Sciences, obtaining permission from the managers of Besat Medical Education Center for sampling and implementation of participatory care program. In two groups, the researcher was introduced himself to parents and was expressed the goals of the study as well as invited the parents' to contributed in the study. To observe ethical principles, they were assured that the confidential information will be preserved. How to implement the program is described in the following three sections:

Implementation the program

Control group sampling

In the control group, who received routine cares by nurses, to observe ethical principles, the consent forms and demographic questionnaires of caregiver parents as well as parental standard satisfaction questionnaires on care were given and were completed by child parents at 2 times included the evening of the 2nd day and the discharge day. To prevent bias, after control group Sampling was done, the second phase of program was began through nurse education in intervention group, the second phase of program was began through nurse education in intervention group.

Nurse education

In the pre-intervention of the second stage, training sessions were held for nurses to familiarize them with implementation and nurse–parent participation processes of the research. The education class and familiarity with the participatory care were held in the presence of 10 nurses in 2 times 30–40 min sessions to change the attitude and practice of nurses toward partnership with the caregiver parents using lecturing, group discussion, question, and answer methods as well as PowerPoint training. The purpose of the study, the process of doing the study, and the issues related to the participatory care were first provided to the nurses. Nurses' duties for the child and parents were clearly defined to implement the participatory care, and then the level and manner of parental involvement in the planning and presentation of care were defined. Nurses were asked to participate in the care program for the intervention group's patients from the 3rd day onward of patient admission. It should be noted that, after the completion of the control group sampling, the training class and familiarity with participatory care for nurses were held.

Intervening group sampling

In the intervention group, at first, the consent forms and the demographic data questionnaires of caregiver parents as well as the parents' standard satisfaction questionnaires on care were completed in the evening of the 2nd day of admission (before intervention) by child parents. Then, participatory care skill training was educated to help parents after collecting the first stage questionnaires. The training class was held on the child's bedside in a 1-hour session in the presence of 5 parents per session to get familiar with participatory care in a face-to-face and group-based manner according to parents' level of knowledge. Caregiver parents' questions were answered inside and outside of the time of training. Parental satisfaction questionnaires were given to them on the discharge day (after intervention) and were completed by child parents. The content of training classes for nurses includes the expression of research goals, definition of participatory care and the importance of parental and nurse participation issues in care, the quality of nursing care, the definition of the components of the participatory care process, the relationship between the nurse and the parents, the duties of the nurse toward the child and the parents, and the amount and method of parental contribution in planning, providing care, and assessing care. How to train the nursing skills depend on skill need of the child's parent, the type of child's disease, parents ability and level of participation in care planning, providing care, assessment of care. How to train the nursing skills depend on educational and informational needs of the child's parent about the type of child's illness, diagnosis of a child's disease, diagnostic procedures, nurses' support from the caregiver parents, and the mediator role of the nurse in the relationship between the physician and the parents. These items and related content were extracted from the authoritative sources of Wong's nursing children, Nelson's children's diseases, and so on.

Statistics

SPSS software version 22 was used to analyze the data. Normality of the data was performed using Kolmogorov–Smirnov tests, independent *t*-test, Mann–Whitney U test, paired *t*-test or Wilcoxon test, Chi-square test, or Fisher's exact test. The significance level was considered equal to 0.05.

RESULTS

The findings showed that between parental age, child's age, parental gender, child gender, parental education, parental occupation, number of children, grade of children, hospitalization history, place of residence, the type of disease, and the history of the disease for children admitted to the pediatric wards in the intervention and control groups were not significantly different ($P > 0.05$). Therefore, the two groups are homogeneous in terms of the variables [Table 1]. Based on the results of the between group comparisons, before the intervention, there was no significant difference between the two groups in terms of satisfaction with the welfare services of the two intervention and control groups ($P < 0.05$). After the intervention, there was a significant difference between the two groups in terms of satisfaction with the welfare services of both intervention and control groups ($P < 0.05$). Based on the results of intergroup comparisons, in the intervention group, there was a significant difference between the welfare satisfaction of the parents before and after the intervention ($P < 0.05$). However, in the control group, there was no significant difference between the satisfaction of parents with welfare services before and after the intervention ($P < 0.05$) [Table 2]. Based on the results of the between group comparisons, before intervention, there was no significant difference between the parents' satisfaction with the medical services of both intervention and control groups ($P < 0.05$). After intervention, there was a significant difference between the parents' satisfaction with the medical services of both intervention and control groups ($P < 0.05$). Based on the results of intergroup comparisons, in the intervention group, there was a significant difference between the parents' satisfaction with medical services before and after the intervention ($P < 0.05$). However, in the control group, there was no significant difference between the

Table 1: Descriptive characteristics and comparison of demographic characters in the intervention and control groups

Property	Intervention (%)	Group control (%)	*P*	Property	Intervention (%)	Group control (%)	*P*
Parents age (years)				Child age (years)			
SD±Mean	33±7.91	32.3±8.49	0.631	SD±Mean	4.51±2.7	4.45±0.77	0.631
Parental gender				Child Gender			
Female	56 (93.3)	56 (93.3)	1	Girl	30 (50)	30 (50)	1
Male	4 (6.7)	4 (6.7)		boy	30 (50)	30 (50)	
Parent's Education				Parent's job			
Illiterate	7 (11.7)	7 (11.7)	0.997	Self-employment	3 (5)	3 (5)	0.971
Primary and guidance	28 (46.7)	27 (45)		Employee	11 (18.3)	10 (16.7)	
Diploma	12 (20)	12 (20)		Housekeeper	46 (76.7)	47 (78.3)	
Academic	13 (21.7)	14 (23.3)					
Number of children				Child birth rank			
1	23 (38.3)	23 (38.3)	0.774	1	29 (48.3)	34 (56.7)	0.524
2	20 (33.3)	24 (40)		2	16 (26.7)	18 (30)	
3	9 (15)	8 (13.4)		3	10 (16.7)	5 (8.3)	
4 and more	8 (13.4)	5 (8.3)		4 and more	5 (8.3)	3 (5)	
History of hospitalization	23 (38.3)	34 (56.7)	0.067	Location			
Yes	37 (61.7)	26 (43.3)		Center of province	35 (58.3)	38 (63.3)	0.796
No				City	15 (25)	12 (20)	
				Village	10 (16.7)	10 (16.7)	
Disease type				History of admission			
Respiratory	13 (21.6)	1 (18.3)	0.999	Yes	22 (36.7)	17 (28.3)	0.436
Kidney and urethra	13 (21.6)	15 (25)		No	38 (63.3)	43 (71.7)	
Digestive	9 (15)	8 (13.3)					
Fever and seizure	16 (26.7)	17 (28.3)					
Blood disorders	3 (5)	3 (5)					
Others	6 (10)	6 (10)					

SD: Standard deviation

Table 2: Descriptive characteristics and comparison of parental satisfaction with welfare services of children admitted to internal pediatric wards in two groups of intervention and control

Parental Satisfaction Dimension	Measurement time	Group, Mean±SD		Between group comparisons	
		Intervention	Control	Test statistics	*P*
Welfare services	Before intervention	29.45±4.72	29.91±6.8	0.521	0.602
	After intervention	31.9±4.5	29.5±4.72	2.57	< 0.01
Intergroup comparisons	Test statistics	2.81	1.64	-	
	P	<0.005	0.1		

SD: Standard deviation

parents' satisfaction with medical services before and after the intervention ($P < 0.05$) [Table 3]. Based on the results of the between group comparisons, before intervention, there was no significant difference between the parents' satisfaction with nursing care in the intervention and control groups ($P < 0.05$). After intervention, there was a significant difference between parents' satisfaction with nursing care in intervention and control groups ($P < 0.05$). Based on the results of intergroup comparisons, in the intervention group, there was a significant difference between the parents' satisfaction with nursing care before and after the intervention ($P < 0.05$). However, in the control group, there was no significant difference between the parents' satisfaction with nursing care before and after the intervention ($P < 0.05$) [Table 4]. Based on the results of the between group comparisons, before intervention, there was no significant difference between the parents' satisfaction between in two intervention and control groups ($P < 0.05$). After intervention, there was a significant difference between parents' satisfaction in both intervention and control groups ($P < 0.05$). Based on the results of intergroup comparisons, in the intervention group, there was a significant difference between the parents' satisfaction before and after the intervention ($P < 0.05$). However, there was no significant difference between parents' satisfaction before and after the intervention in the control group ($P < 0.05$) [Table 5].

DISCUSSION

The results of our study indicated that there was a significant difference between the underlying variables including parental

Table 3: Descriptive Characteristics and Comparison of Parental Satisfaction in Medical Services of children admitted to Internal Pediatric wards in two groups of intervention and control

Parental satisfaction dimension	Measurement time	Group, Mean±SD		Between group comparisons	
		Intervention	Control	Test Statistics	*P*
Medical Services	Before intervention	31.31±4.68	31.7±5.12	0.446	0.656
	After intervention	37.23±4.45	31.38±4.7	6.34	< 0.001
Intragroup comparisons	Test statistics	5.45	0.438	-	
	P	< 0.001	0.661		

SD: Standard deviation

Table 4. Descriptive characteristics and comparison of parental satisfaction in nursing care of children admitted to internal pediatric wards in two groups of intervention and control

Parental Satisfaction Dimension	Measurement time	Group, Mean±SD		Between group comparisons	
		Intervention	Control	Test Statistics	P
Nursing cares	Before intervention	39.25±4.52	38.35±4.95	1.037	0.302
	After intervention	48.23±4.57	39.23±4.54	10.82	<0.001
Intergroup comparisons	Test statistics	10.15	1.83	-	
	P	<0.001	0.071		

SD: Standard deviation

Table 5: Descriptive characteristics and comparison of parental satisfaction of children admitted to internal pediatric wards in two groups of intervention and control

Parental Satisfaction Dimension	Measurement time	Group, Mean±SD		Between group comparisons	
		Intervention	Control	Test statistics	*P*
Parental satisfaction	Before intervention	100.26±12.23	99.96±12.79	0.126	0.099
	After intervention	117.46±10.51	100.36±12.25	7.39	< 0.001
Intergroup comparisons	Test statistics	5.98	0.731	-	
	P	<0.001	0.465		

SD: Standard deviation

age, child's age, parental gender, child gender, parental education, parental occupation, number of children, order of children, hospitalization history, place of residence, type of disease, and the history of the disease in pediatric wards in the intervention and control groups. Therefore, the two groups are homogeneous in terms of the variables. Hence, the simple random sampling method is well done and these factors cannot be as disturber in differences in the results of the two groups. According to the most important results of this study, participatory care had a good effect on the satisfaction of the parents of children with providing care in pediatric wards and this good effect was observed in all aspects of parental satisfaction including welfare services, medical services, and nursing care. In a study conducted by Farnia *et al*., they found that the satisfaction rate of the patients hospitalized in the intensive care unit (ICU) after family-based care intervention increased compared to the control group, so the result of our study is in agreement with this study. Therefore, family-based care can enhance the family patient's satisfaction in ICU.[20] In a study conducted by Rostami *et al*., they found that the parents of children admitted to the pediatric ward in the family-based care group had more satisfaction than the control group, so the result of our study is in agreement with this study. Therefore, performing family-based care in child care can increase the satisfaction of their parents.[21] Kolko *et al*. found that participatory care in nursing of children with behavioral problems is correlated with parenting satisfaction. Therefore, the use of participatory care in children's nursing is possible and it is potentially voluminous, and the results of our research are in agreement with this study.[22] Khalilzadeh *et al*. found in their study that family-based caring practices tended to reduce parental problems than usual care. Therefore, they recommended that this method can be used in child care.[23] Aein *et al*. found that the average total satisfaction of mothers from nursing care was higher in the intervention group than in the control group. Furthermore, the mean of mother's satisfaction in five areas of information, communication, clinical skills, emotional, and family participation in the intervention group is more than control group. Therefore, nursing-parent-managed participation can be used to increase the satisfaction of mothers from care.[19] Begjani *et al*. found that the principles of family-based care were of paramount importance to parents. The result of the present study is also consistent with Begjani's study. Therefore, considering these principles and the provision of

family-based care can meet the needs of care for both parents and the child. Hence, their satisfaction has come from the care system.[24] The strength of this study is that this study was a clinical trial. However, this study has been carried out for a short time; therefore, the current study will continue to be cohort to assess the impact of participatory care on the satisfaction of the parents of children admitted on the long-term care in the pediatric wards. Furthemore, few studies have been done on the effect of parental and nursing participatory care on the quality of nursing care provided in pediatric wards. Therefore, it is suggested that more studies be designed in this area in different parts of the world. Finally, based on the results of this study, it seems that the use of participatory care was effective on the satisfaction of the parents of children with providing care in the areas of welfare services, medical services, and nursing care in the pediatric departments. Therefore, it can be a good alternative to routine care. In other words, nurses working in the pediatric ward can use this type of care to play a significant role in satisfying more families. Therefore, it is suggested that the pediatric staff takes advantage of this model, taking into account the conditions and needs of the family of patients and accepting the important role of family in patient care.

CONCLUSION

Based on the results of this study, it seems that the implementation of participatory care program was effective in increasing the satisfaction of parents of children admitted in the pediatric department. Therefore, it is possible to take advantage of a participatory care plan for child care in the pediatric ward.

APPLICATION OF CLINICAL FINDINGS

Nursing managers can use nursing and parenting care participation to increase the satisfaction of parents in various dimensions of satisfaction, including in the area of medical services, including intimate communication with parents and providing appropriate information about the type of disease and diagnostic and therapeutic measures, in the field of nursing care, providing information on nursing care, familiarization with the hospital ward and parent participation in decision-making, planning, and treatment, and providing required training on follow-up and home care and welfare services, including attention and helping to create a sense of relaxation and comfort in the hospitalized child and caregiver parent. Necessity to implement a participatory care plan is proper nursing education and determining the role of the nurse in relation to the patient's child and parent's care and the permitted range and how parents participate in decision-making, planning, and implementation of care.

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DECLARATION OF CONFLICTING INTERESTS

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REFERENCES

1. Wong's HW. Nursing Care of Infants and Children. 9th ed. St. Louis, MO: Mosby Elsevier; 2011.
2. Aeen F, Alhani F, Mohammadi I, Kazemnejad A. Mother's needs of sick in-patient Children: A basic concept for nursing education. Iran J Med Ethics Hist Med 2010;3:70-81.
3. Karimi R, Daneshvar Z, Sadat Hoseini A, Mehran A, Shiri M. Perceptions of parents and nurses on needs of hospitalized children's parents. J Hayat 2008;14:31-9.
4. Rassouli M, Mirlashari J, Gharebagh A. Nursing Care of Infant and Children. Tehran: Andishe rafie; 2010.
5. Van Riper M. Family-provider relationships and well-being in families with preterm infants in the NICU. Heart Lung 2001;30:74-84.
6. Hallström I, Elander G. Decision-making during hospitalization: Parents' and children's involvement. J Clin Nurs 2004;13:367-75.
7. Shields L, Pratt J, Hunter J. Family centred care: A review of qualitative studies. J Clin Nurs 2006;15:1317-23.
8. Klakovich MD, Dela Cruz FA. Validating the interpersonal communication assessment scale. J Prof Nurs 2006;22:60-7.
9. Nouri H. Applying SERVQUAL Model in Rasoule Akram hospital [MSc Thesis]. Iran University of Medical Science; 2006.
10. Bragadóttir H, Reed D. Psychometric instrument evaluation: The pediatric family satisfaction questionnaire. Pediatr Nurs 2002;28:475-82.
11. Marino BL, Marino EK. Parents' report of children's hospital care: What it means for your practice. Pediatr Nurs 2000;26:195-8.
12. Pourmovahed Z, Dehghani K, Shakiba M, Shahri T. Mothers' satisfaction rate of hospital cares in the pediatric ward at sadoqi hospital of Yazd (2004). J Kermanshah Univ Med Sci 2007;11:483-96.
13. Caro P, Derevensky JL. Family-focused intervention model implementation and research findings. Topics Early Child Spec Educ 1991;11:66-91.
14. Van Riper M. Maternal perceptions of family-provider relationships and well-being in families of children with Down syndrome. Res Nurs Health 1999;22:357-68.
15. Akbarbegloo M, Valizadeh L, Asadollahi M. Mothers and nurses viewpoint about importance and perceived nursing supports for parents with hospitalized premature newborn in

natal intensive care unit. J Crit Care Nurs 2009;2:71-4.
16. DeChillo N, Koren PE, Schultze KH. From paternalism to partnership: Family and professional collaboration in children's mental health. Am J Orthopsychiatry 1994;64:564-76.
17. Markani AK, Saheli S, Sakhaei S, Khalkhali HR. Assessment the effect of family centered care educational program on home care knowledge among care givers of patients with chronic renal failure under hemodialysis. J Urmia Nurs Midwifery Fac 2015;13:386-94.
18. Shelton TL. Family-Centered Care for Children with Special Health Care Needs: ERIC. Bethesda, MD: Association for he Care of Children's Health; 1987.
19. Aein F, Frouzandeh N, Mohammadi I, Alhani F. The effect of Nurse-parent collaboration Model on mother's satisfaction. J Clin Nurs Midwifery 2012;1:42-51.
20. Farnia F, Fooladi L, Nasiriani KH, Lotfi MH. Effectiveness of family-centered care on family satisfaction in intensive care units. Hakim Health Sys Res 2015;17:306-12.
21. Rostami F, Hassan ST, Yaghmai F, Ismaeil SB, Suandi TB. Effects of family-centered care on the satisfaction of parents of children hospitalized in pediatric wards in a pediatric ward in Chaloos in 2012. Electron Physician 2015;7:1078-84.
22. Kolko DJ, Campo J, Kilbourne AM, Hart J, Sakolsky D, Wisniewski S, *et al.* Collaborative care outcomes for pediatric behavioral health problems: A cluster randomized trial. Pediatrics 2014;133:e981-92.
23. Khalilzadeh H, Khorsandi F, Feizi A, Khalkhali H. The effect of family- centered care on anxiety of hospitalized child's parents with urinary tract infection in pediatric ward of Shahid Motahary Medical training center in Urmia in 2012. J Urmia Nurs Midwifery Fac 2013;11:34-41.
24. Begjani J, Mohammad Nejad E, Mohajer T, Noorian M, Nasiri Osquei N. Parents' views about the importance of principles of family-centered care. J Histochem Cytochem 2011;13:52-9.

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