RESEARCH ARTICLE

Doctors and nurses' views on the participation of parents in invasive procedures of hospitalized children

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Abstract

Objective: To determine health professionals' opinions toward family presence during invasive procedures in children, and to see the difference between the attitudes of physicians and nurses on the issue.

Methods: The descriptive study was conducted in June 2016 at the Paediatrics Clinic of Karadeniz Technical University Farabi Hospital, Trabzon, Turkey, and comprised health professionals working at the clinics. Data regarding attitudes of physicians and nurses on family presence during invasive procedures in children was collected using a questionnaire. Data was analysed using SPSS 20.

Results: Of the 95 health professionals, 71(75%) were nurses and 24(25%) were paediatric physicians. Overall, 41(43.2%) subjects supported the idea of family presence during invasive procedures in children; 31(43.7) nurses and 10(41.7) physicians. The 54(56.8%) professionals who did not support family presence cited two major reasons; "Family gives an emotional response (p=0.001)", "It increases the stress of the healthcare provider performing the procedure" (p=0.00)".

Conclusion: Healthcare professionals largely did not support the idea of family presence as they believed that the invasive procedures became more challenging.

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Introduction

Parents have an important role in protecting their children. Therefore, the focus of a paediatric nurse should be on children and their families. Family-centred care is a care philosophy that emerged in the 1970s due to the need to protect the relationship between hospitalised children and their families.[1] It includes a holistic care approach addressing children and their families as a whole in terms of physical, emotional, cognitive, social, cultural and religious aspects.[1]

According to this approach, family presence (FP) is supposed to be accepted in care planning, application and evaluation and it also includes the fact that families should have a voice in their child's care as much as the care-providers.[2] Families strongly cooperate with health professionals in the care of their children and are usually the primary support system for them. The aim of family-centred care is to maintain ties between the family and the child to ensure FP in child care, to enable children to feel secure in a hospital environment and to prevent negative effects of hospitalisation on the child and the family.[1]

FP during invasive procedures in paediatrics is a major theme of family-centred care. FP means being next to the loved ones during procedures by providing physical and visual communication.[3] The separation of families from their children at a critical time is contrary to the philosophy of family-centred care and nursing. Today, although family-centred care philosophy is adopted, there are positive and negative opinions on FP during invasive procedures and/or resuscitation. Healthcare professionals do not approve of FP in the procedures due to some negative thoughts. For example, families may lose emotional control during procedures and may wish to terminate it; their psychology may adversely be affected and it increases the stress of the healthcare team and family; family may prevent the healthcare team from working conveniently; the technical skills of the healthcare team may be negatively affected; they cause confusion and chaos during procedures; there may be a breakdown in effective communication between the medical team and the family; the child may have far more reactions; and families may sue in case of anyone's fault.[4-8]

Negative thoughts about FP during procedures are hypothetical and the studies, on the contrary, suggest that it provides positive contribution to the child and the healthcare team.[9-13] It has been found that the stress and anxiety of families who participate in an intervention decreases, they feel themselves more comfortable when they see that the healthcare team is doing what is necessary for their child, their confidence in the medical team increases, they participate in post-procedure care of children more effectively and deal with the grieving

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process better in case of the loss of their child.[14-18]

Besides, it has also been reported that when parents participate in an intervention process, the fear and anxiety of their child decrease, emotional and moral support is provided, the feeling of confidence increases, they can divert child's attention, they increase child's compliance with treatment, child's negative behaviour during the operation reduces, the child experiences less pain during and after the operation and has fewer sleep problems, and it increases child's satisfaction.[12,13,19-21] Although many countries, especially Western societies, have adopted family-centred care philosophy, health professionals still have hypothetical negative thoughts and concerns related to FP during invasive interventions.[9,13,22,23] To determine what the current situation is like in Turkey, it is important to examine the views of nurses and physicians in the light of evidence from international studies.

The current study was planned to determine health professionals' opinions in Turkey towards FP during invasive procedures in children and to see the differences between the attitudes of physicians and nurses.

Subjects and Methods

The descriptive study was conducted in June 2016 at the Paediatrics Clinic of Karadeniz Technical University Medical Faculty Farabi Hospital, Trabzon, Turkey, and comprised health professionals working at the study site after approval from institution's Chief Physician's Office, the sample was raised using consecutive sampling technique. Verbal consent was obtained from the subjects before collecting data.

A 12-item questionnaire was used to collect data. Eight questions related to demographic details, 2 questions determined which one was preferred among a total of 14 interventions, such as intravenous (IV) and intramuscular (IM) injections, heel prick test, lumbar puncture etc., and two open-ended questions sought the reasons of whether families should be involved in interventional procedures or not. The responses of the paediatric nurses and paediatric physicians to open-ended questions were grouped under some headings by the researchers, such as 'It facilitates applications, it reduces child's fear and anxiety, etc. (FP benefits) and 'Family gives emotional responses, Family intervenes in the procedure, etc. (FP drawbacks). The physicians and nurses were requested to fill out the survey at their convenience within the same working day.

SPSS 20 was used for data analysis. Frequencies and percentages as well mean and standard deviation (SD) were calculated as appropriate. Chi-square results were evaluated at 95% confidence interval (CI). P<0.05 was considered significant.

Results

Of the 95 health professionals with a mean age of 31.49 ±

Table-1: Distribution of preferences of the nurses and the physicians toward Family Presence (FP) during invasive interventions.

Interventions	Nurse		Physician		X^2	P
	n	%	n	%		
Heel prick test						
Yes	31	43.7	8	33.3		
No	40	56.3	16	66.7	0.791	0.37
Intravenous intervention (IV)						
Yes	18	25.4	9	37.5		
No	53	74.6	15	62.5	1.301	0.25
Central venous catheterization						
Yes	8	11.3	3	12.5		
No	63	88.7	21	87.5	.027*	0.87
Lumbar puncture						
Yes	9	12.7	1	4.2		
No	62	87.3	23	95.8	1.379*	0.24
Intramuscular (IM) Injection						
Yes	56	78.9	16	66.7		
No	15	21.1	8	33.3	1.457	0.22
Urinary catheterization						
Yes	34	47.9	11	45.8		
No	37	52.1	13	54.2	0.03	0.86
Rectal tube application						
Yes	39	54.9	16	66.7		
No	32	45.1	8	33.3	1.014	0.31
Nasogastric tube insertion						
Yes	33	46,5	11	45.8		
No	38	53,5	13	54.2	0.665	0.71
Aspiration						
Yes	40	56.3	11	45.8		
No	31	43.7	13	54.2	0.796	0.37
Throat culture						
Yes	45	63.4	18	75		
No	26	36.6	6	25	1.084	0.29
Bone marrow aspiration						
Yes	2	2.8	0	0		
No	69	97.2	24	100	**	
Wound dressing						
Yes	18	25.4	9	37.5		
No	53	74.6	15	62.5	1.301	0.25
Endotracheal intubation						
Yes	1	1.4	0	0		
No	70	98.6	24	100	**	
Cardio-pulomanry Resuscitation (CPR)						
Yes	1	1.4	0	0		
No	70	98.6	24	100	**	

* Fisher's exact chi-square test was performed because any of the expected frequencies in four-cell patterns was smaller than 5.

** As the numbers in the cells were insufficient, the difference between the two groups could not be studied.

Table-2: The distribution of nurses and physicians' opinions toward the benefits of Family Presence (FP).

The benefits of family presence	Beneficial n	%	Not beneficial n	%	X^2	P
Family presence						
Nurse	31	43.7	40	56.3		
Physician	10	41.7	14	58.3	0.029	0.86
Facilitating application						
Nurse	15	21.1	56	78.9		
Physician	5	20.8	19	79.2	0.001	0.97
Reducing child's fear and anxiety						
Nurse	7	9.9	64	90.1		
Physician	1	4.2	23	95.8	.863*	0.35
Providing confidence and comfort						
Nurse	26	36.6	45	63.4		
Physician	8	33.3	16	66.7	0.084	0.77
Providing moral and emotional support						
Nurse	14	19.7	57	80.3		
Physician	2	8.3	22	91.7	1,874*	0.17
Teaching procedure to family						
Nurse	0	0	71	100		
Physician	4	16.7	20	83.3	**	

* Fisher's exact chi-square test was performed because any of the expected frequencies in four-cell patterns was smaller than 5.
** As the numbers in the cells were insufficient, the difference between the two groups could not be studied.

6.32 years, 71(75%) were nurses with mean age 31.53±7.02 years and 24(25%) were physicians with mean age 31.37±3.66. Overall work experience was 8.70±6.75 years; 9.66±7.21 years for nurses and 5.85±4.10 for physicians. Of the total, 92(96.8%) were women; 70(98.6%) among nurses and 22(91.75%) among physicians. Overall, 49(51.6%) subjects were married; 37(52.1%) nurses and 12(50%) physicians. Also, 36(37.9%) subjects had children; 28(39.4%) nurses and 8(33.3%) physicians. Overall, 41(43.2%) subjects supported the idea of FP during invasive procedures in children; 31(43.7) nurses and 10(41.7) physicians. There was no significant difference between the socio-demographic characteristics of the nurses and the physicians and their FP preferences (p>0.05) (Table-1).

The opinion on the benefits of FP for the child was compared between the nurses and the physicians along six parameters and there was no significant difference between the groups (p>0.05) (Table-2).

The negative effects of FP was compared between the nurses and the physicians. A highly significant difference was found between the groups on three parameters: "family gives emotional responses", "FP increases the stress of healthcare providers performing the procedure", and "FP disrupts the concentration of the healthcare provider performing the procedure (p<0.05 each) (Table-3).

Table-3: The opinions of the nurses and the physicians toward the drawbacks of Family Presence (FP) during invasive procedures.

Drawbacks of family presence	Yes n	%	No n	%	X^2	P
Family presence during invasive procedures						
Nurse	63	88.7	8	11.3		
Physician	22	91.7	2	8.3	.16*	0.68
Family gives emotional responses						
Nurse	45	63.4	26	36.6		
Physician	7	29.2	17	70.8	8.47	0
Family gives undesired excessive responses						
Nurse	24	33.8	47	66.2		
Physician	11	45.8	13	54.2	1.11	0.29
Family may feel faint during the intervention						
Nurse	3	4.2	68	95.8		
Physician	1	4.2	23	95.8	.00*	0.99
Family intervenes the procedure						
Nurse	33	46.5	38	53.5		
Physician	14	58.3	10	41.7	1	0.31
Family makes the procedure difficult						
Nurse	44	62	27	38		
Physician	18	75	6	25	1.34	0.24
Family increases the stress of the healthcare provider performing the procedure						
Nurse	24	33.8	47	66.2		
Physician	18	75	6	25	12.34	0
Family disrupts the concentration of the healthcare provider performing the procedure						
Nurse	16	22.5	55	77.5		
Physician	16	66.7	8	33.3	15.63	0
Child is negatively affected						
Nurse	16	22.5	55	77.5		
Physician	2	8.3	22	91.7	2,69*	0.1

** Fisher's exact chi-square test was performed because any of the expected frequencies in four-cell patterns was smaller than 5.

Discussion

In recent years, with the adoption of family-centred care philosophy in invasive procedures, including cardio-pulmonary resuscitation (CPR) has become an application adopted by health professionals and approved by researchers in the field of health. The research has revealed the necessity of FP in all kinds of diagnostic and therapeutic interventions during the hospitalisation of a child. Many hospitals in the developed countries have organised care according to family-centred care philosophy and begun developing policies and procedures to provide FP in all kinds of interventions, including CPR. Although the approach has been adopted in Turkey, only a small number of the studies have been done in the area.

In the current study, 43.2% health professionals approved FP in all kinds of interventions, and the majority 56.8% did not approve it in CPR, endotracheal intubations and bone marrow aspiration. Health professionals had similar views about FP depending on the type of intervention in the current study which revealed that health professionals prefer FP during simple and small interventions, such as IM injection, throat culture, aspiration, urinary catheter insertion, nasogastric tube insertion and rectal tube application. However, they do not prefer it at all or feel hesitation during challenging and critical interventions, such as CPR, endotracheal intubations, bone marrow aspiration, lumbar puncture. Similar findings were obtained in an earlier study,[3] reporting that FP was preferred depending on the type of intervention. It was found that FP was preferred during IV intervention, nasogastric tube insertion, urinary catheterisation but not in resuscitation, endotracheal intubation, bone marrow aspiration and lumbar puncture.[3] One study found that FP was preferred at a low rate, while in another study FP was approved depending on the type of intervention.[19,24] In another study, while the majority of parents (63.2%) wanted to be with their children during the procedure, only 11.1% of the physicians and 27% of the nurses found FP appropriate.[25]

The studies conducted in Western countries, including the United States, suggest that a high proportion of health professionals approved of FP during invasive procedures.[4,5,13,15] Unlike such studies, studies in Turkey have shown that hardly any health professional preferred FP in interventions such as endotrachael intubation, bone marrow aspiration, lumbar puncture and CPR,[3,19,22-24] In the United States,[5,15,20] Europe[6,8] and Australia,[10] FP is supported by health professionals even in interventions such as CPR. Another point is that physicians are not as keen as the nurses regarding FP.[3-5,9]

The findings of the related studies cited above were similar to our findings in that nurses supported FP more than physicians but there was no statistically significant difference. Studies showed that health professionals were less likely to support FP than parents.[3-5,9] The parents were found to be willing to accompany their children in all kinds of interventions, including CPR.[4,5,15,26] Compared to physicians, the nurses supported FP more in all kinds of invasive interventions, including CPR.[4,5]

In the related literature, when asked why they accepted FP, most nurses and physicians stated their reasons as follows; "FP ensures the child's safety and comfort," "It facilitates the procedures", and "It provides emotional and moral support to the child".[9-11,13,16] In the present study, health professionals also reported similar opinions with regards to the benefits of FP in terms of "ensuring the child's safety and comfort during interventions".

Generally speaking, health professionals do not approve of FP during interventions owing to the fact that "they may experience stress and anxiety due to family's inappropriate behaviour and the procedure may cause a psychological trauma in the families".[5,6,22,23] In this study, majority of the nurses and the physicians described FP as undesirable. The drawbacks reported in this study are compatible with the findings of earlier studies cited above. Nurses are more concerned about the emotional response that the family may give during the procedure, while physicians worry about families' potential to make intervention difficult.

However, health professionals in the current study did value FP in terms of its positive effect on the child's feeling of confidence and comfort.

A family-centred approach is very important in terms of increasing the quality of services offered. In the light of this philosophy, in order to ensure FP in challenging interventions, training programmes for health professionals, especially for physicians, should be organised and policy development activities should be initiated. Evidence-based studies should be conducted for paediatric doctors and nurses to promote FP in invasive interventions.

Conclusion

FP during challenging invasive procedures in children was not something considered desirable by majority of health professionals in the study. The more challenging an intervention, the less preferred was FP.

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