

## Impact of family presence in pediatric intensive care unit on the family and the medical team in Saudi Arabia Riyadh.

Mosleh Jabari<sup>1</sup>, Fahd Algaed<sup>2</sup>, Hassan Al-shehri<sup>2\*</sup>, Abdullah Alzayed<sup>2</sup>, Abdullah Al-faris<sup>3</sup>, Hamad Algaed<sup>1</sup>, Norah Almajed<sup>4</sup>, Noura Ababtain<sup>4</sup>, Mohammed Al-Sayed<sup>3</sup>

<sup>1</sup>College of Medicine, Al-Imam Mohammad Ibn Saud Islamic University, Riyadh, Saudi Arabia

<sup>2</sup>Department of Pediatrics, College of Medicine, Al-Imam Mohammad Ibn Saud Islamic University, Riyadh, Saudi Arabia

<sup>3</sup>Department of Pediatrics, Security Forces Hospital, Riyadh, Saudi Arabia

<sup>4</sup>College of Medicine, King Saud University, Riyadh, Saudi Arabia

### Abstract

**Aim:** The study is aimed to obtain the opinions and attitudes of healthcare staff towards the presence of family members around their children in the pediatric intensive care units.

**Methods:** A cross-sectional study has been conducted in the health care centers within Riyadh City, Saudi Arabia. The study included 217 practitioners of pediatric and intensive care units.

**Tool:** A self-reported questionnaire was used for data collection.

**Results:** Finding suggested that about 3/4th of the participants (72.4%) agreed that “family presence would positively influence the outcome of their child.” In comparison, 60.4% admitted that it provides them with an improved understanding of complications. Moreover, 48.8% admitted emotional trauma, 47.5% believed that family presence is beneficial to the patient, while 44.7% speculated that it might influence their treatment decision. The participants’ responses differed significantly considering that family presence may cause medicolegal litigation ( $p < 0.001$ ). Also, participants’ responses differed significantly considering that family presence is beneficial to the patient ( $p = 0.001$ ).

**Conclusions:** The development of written policies and guidelines is essential to help healthcare practitioners, and families decide to be (or not to be) with their children during intensive care procedures.

**Keywords:** Family presence, Health care practitioners’ attitude, Pediatric intensive care unit.

*Accepted on February 26th, 2021*

### Introduction

The presence of family during intensive care procedures for children has been controversial over the past two decades. Previous studies revealed that the intensive care unit's healthcare staff perceived both positive and negative effects due to family presence during pediatric care, and their opinions indicated more risks than benefits [1,2].

According to the parent’s perspective, the family's presence helped the child while easing their fears. Also, the parents played an active role in the unit as they believed it was their right to be present regardless of the traumatic experiences that could be inflicted upon them in such situations [3].

However, physicians rarely allow familial presence in such occurrences. Several studies revealed conflicts between the medical team and the family, and only marginal personnel of the staff favoured the company of parents. Supposedly, the emotional and psychological trauma and the risk of interference with medical management and care drove the healthcare team to avoid the presence of the family in such delicate situations [4].

Family-based care is a widely used pediatrics approach by the American College of Critical Care Medicine and the American Academy of Pediatrics. The method recommends changes in the healthcare system, emphasizing the need for patient-centred care and open exchange of information between healthcare providers and patients responsively and respectfully that accommodates the patient’s preferences. Accumulating evidence has shown that the family's involvement can profoundly influence clinical decisions and patient outcomes in intensive care units [5].

Typically, parents want to play an instrumental role in the care and s recovery of their child. In response to the increasing awareness of the parents’ needs, many pediatric intensive care units have adopted 24 hrs open visiting policies [5]. Moreover, several members of the patient’s family might experience stressful situations exclusively due to a lack of information provided by the medical staff caring for their kin. While their child is in an intensive care unit, the parents' most significant needs are to be near their child, receive accurate information, and believe that their child is receiving adequate care [6].

Saudi Arabia does not have clear policies or guidelines to help healthcare workers to choose which family members may be

present during those procedures. This study aimed to draw healthcare personnel's opinions and attitudes towards their children and their families in child care units [2].

### Materials and Methods

A cross-sectional study was conducted from April-May 2018 in several health centres in Riyadh, Saudi Arabia. This study included all participants, such as the pediatric and the intensive care unit, after obtaining informed consent. The study included 217 physicians aged 25-60 years (mean ± SD:38.1 ± 10.6 years).

A self-reported questionnaire was designed to gather data on health care workers' attitudes to family members of pediatric patients from critical care units. Before data collection, health professionals were notified of the study and instructed on the questionnaire's full and correct completion.

The data were analyzed through descriptive statistics and in percentage. The variation in the responses of the respondent is observed through p-value.

### Results

Table 1 shows that a majority of the participants were males (73.7%). The participants were in different positions: 40.1% were residents, 22.1% were specialists, and 37.8% were consultants. Family members surrounded all participants (100%) during an emergency with their children.

Characteristics	No.	Percentage (%)
Gender		
Male	160	73.7
Female	57	26.3
Position		
Resident	87	40.1
Specialist	48	22.1
Consultant	82	37.8
Experiencing family presence during an emergent situation	217	100

**Table 1.** Personal characteristics of study sample.

Table 2 shows that 72.4% of the participating healthcare practitioners agreed that “family presence would positively influence the outcome of their child.” In comparison, 60.4% postulated that it provides them with an improved understanding of the complications. Moreover, 48.8% supposed that it emotionally traumatized them. In contrast, 47.5% believed that “family presence is beneficial to the patient,” and 44.7% stated that “it might influence their treatment decision,” 26.7% were afraid that “family presence might cause medicolegal litigation,” and 25.3% judged that their presence “creates conflict to the patients’ privacy and confidentiality.”

Statements	No.	Percentage (%)
It may emotionally traumatizes attending family members		
No	111	51.2
Yes	106	48.8
Family presence may cause medicolegal litigation		
No	159	73.3
Yes	58	26.7
It may influence treatment decision		
No	120	55.3
Yes	97	44.7
It creates conflict to the patients’ privacy and confidentiality		
No	162	74.7
Yes	55	25.3
It provides them with better understanding to complications		
No	86	39.6
Yes	131	60.4
Family presence is beneficial to the patient		
No	114	52.5
Yes	103	47.5
Family presence would positively influence the outcome of their child		
No	60	27.6
Yes	157	72.4

**Table 2.** Participants’ attitude regarding presence of family members in pediatric intensive care unit.

Table 3 shows that healthcare practitioners' responses towards family members in the pediatric intensive care unit did not differ significantly according to their gender.

Statements	Males (n=160)		Females (n=57)		P-value
	No.	%	No.	%	
It may emotionally traumatizes attending family members					
No	80	50	31	54.4	0.569
Yes	80	50	26	45.6	
Family presence may cause medicolegal litigation					
No	116	72.5	43	75.4	0.667
Yes	44	27.5	14	24.6	
It may influence treatment decision					
No	87	54.4	33	57.9	0.646
Yes	73	45.6	24	42.1	
Creates conflict to the patient's privacy and confidentiality					
No	120	75	42	73.7	

Yes	40	25	15	26.3	0.845
It provides them better understanding to complications					
No	61	38.1	25	43.9	
Yes	99	61.9	32	56.1	0.578
It is beneficial to the patient					
No	81	50.6	33	57.9	
Yes	79	49.4	24	42.1	0.345
Family presence would positively influence the outcome					
No	42	26.3	18	31.6	
Yes	125	78.1	32	56.1	0.132

**Table 3.** Participants' attitude regarding presence of family members in pediatric intensive care unit according to their gender.

Table 4 shows that participants' responses differed significantly regarding that the presence of family members might cause emotional trauma to them (55.2% of residents believe that) ( $p < 0.001$ ). The participants' responses differed significantly as the family's presence might cause medicolegal litigation ( $p < 0.001$ ), with 43.9% consultants in agreement. Also, participants' responses differed significantly as the family presence was beneficial to the patient ( $p = 0.001$ ) as proposed by 66.7% of specialists. However, participants did not vary considerably according to their position regarding other attitude statements.

Statements	Resident (n=87)		Specialist (n=48)		Consultant (n=82)		P-value
	No.	%	No.	%	No.	%	
It may emotionally traumatizes attending family members							
No	39	44.8	39	81.3	49	59.8	
Yes	48	55.2	9	18.8	33	40.2	< 0.001
Family presence may cause medicolegal litigation							
No	70	80.5	43	89.6	46	56.1	
Yes	17	19.5	5	10.4	36	43.9	< 0.001
It may influence treatment decision							
No	45	51.7	26	54.2	31	37.8	
Yes	42	48.3	22	45.8	51	62.2	0.103
Creates conflict to the patient's privacy and confidentiality							
No	67	77	33	68.8	62	75.6	
Yes	20	23	15	31.3	20	24.4	0.554
It provides the family better understanding to the complications							
No	36	41.4	12	25	38	46.3	
Yes	51	58.6	36	75	44	53.7	0.051
It is beneficial to the patient							

No	49	56.3	16	33.3	49	59.8	
Yes	38	43.7	32	66.7	33	40.2	0.001
Family presence would positively influence the outcome							
No	25	28.7	13	27.1	22	26.8	
Yes	62	71.3	35	72.9	60	73.2	0.958

**Table 4.** Participants' attitude regarding presence of family members in pediatric intensive care unit according to their position.

## Discussion

Professional organizations have supported the presence of family members near their children in pediatric intensive care units. However, the physicians fear that family members' presence might prolong their rounds and increase the family's anxiety or stress. These concerns need to be validated [7].

The present study aimed to assimilate healthcare staff's opinions and attitudes towards family members' presence with their children in the pediatric intensive care units. This study revealed that family members surrounded all participants, *i.e.*, health care practitioners with their children at pediatric intensive care units.

During intensive care procedures for children, family members' presence is not an uncommon practice for healthcare providers, and most had resuscitated a child with family members present in intensive care units [8].

The present study's findings stated that participants had mixed opinions regarding family members' presence at pediatric intensive care units. About 3/4th of participants considered that family presence could positively influence their child's outcome. Simultaneously, 60.4% thought that it provides the family members with an improved understanding of complications and 47.5% believed that family presence could benefit the patient. On the other hand, regarding the participants' negative aspects of family members' existence with their children in the pediatric intensive care units, almost half of the present study participants stated that the family could occasionally be emotionally traumatized. About 44.7% of participants were afraid that it might influence their treatment decision, 26.7% were worried that their presence might cause medico-legal litigation, and 25.3% expressed their concern towards conflict to the patients' privacy and confidentiality.

Due to the lack of guidelines, the healthcare providers usually express mixed opinions regarding family members' presence with their children in the pediatric intensive care units [9]. Notably, the pediatric intensivists allow family members to reduce the parent's and patients' anxiety and maintain the procedural quality [10].

Powers et al. said that parents were historically excluded from visiting the pediatric intensive care unit during their invasive procedures according to physicians' choice because they thought a parent could interfere with the system's performance

[11]. Bauchner et al. found out that parents were not allowed to follow the procedures as parents became anxious or irritated and that their reactions did not understand and the doctor would be nervous and upset the child [12]. Moreover, some health practitioners admitted that they were swamped with explaining the procedure to the parents or that it might not be preferable for the parent or the child to have a parent present.

Also, Wacht et al. suggested that doctors' opposition to a family presence in emergencies was mainly due to their fears regarding family criticism. This would raise pressure on workers, instill fear of litigation, fear harming family feelings, and risk losing objectivity while treating patients [13].

McClenathan et al. added that healthcare professionals disapproved of family members' presence during intensive care procedures due to their fear of psychological trauma to family members, performance anxiety affecting the intensive care unit team, medicolegal concerns, and fear of distraction to the staff [14].

Gupta et al. reported that family members at pediatric intensive care units were associated with a significantly higher increase in the per-patient rounding time than the rounding time without family members [15]. However, the study concluded that family presence might have benefits that outweigh the additional time required to complete each patient's interaction. Moreover, Badir et al. reported that most of the staff was concerned about violating patient confidentiality and had concerns that some family members might not understand the typical procedures and consider them offensive, thereby not agreeing with the team. Also, the staff expressed its fears that witnessing some delicate practices would cause long-lasting adverse emotional effects on the family members [16].

Notably, Powers et al. stated that allowing parents' presence while their child is undergoing an invasive procedure significantly decreases parental procedure-related anxiety [11]. Almost all parents felt that their presence was a comfort to the child during sedation. Many parents found that the actual procedure was less toxic than they had speculated. The authors observed that none of the parents left the room while the process was being performed despite the opportunities after sedation was accomplished. The study concluded that allowing the parents' presence with their children during procedures positively affects both patients and families. Furthermore, Davydow et al. stated that pediatric patients experience less fear and anxiety during procedures in intensive care units when a loved one is present [17].

Page et al. demonstrated that for family-centred care in the pediatric intensive care unit, the family must be involved in their child's care from the day of admission [18]. The healthcare providers' goal was to empower the family to provide support and care for their child during and beyond the life crisis during admission to the pediatric intensive care unit.

Moreover, Arigliani et al. stressed that the physicians' role should not be limited to treating disease and caring for the patients and their families to understand their real needs, wishes, and fears [19]. This would help establish an empathic

relationship that would make the child and his parents feel accepted, understood, and supported. Nonetheless, the presence of family in the intensive care unit improves the clinical outcomes, entails compliance to therapies, gains satisfactory results for health care workers and patients, and reduces the costs and legal issues.

The present study results showed that the healthcare practitioners' opinions regarding the presence of family members in the pediatric intensive care unit did not differ significantly according to their gender. Still, the positive attitude, *i.e.*, the beneficial effect of family presence and their negative attitude statements, *i.e.*, family members' company, may experience emotional trauma and might cause medicolegal litigation.

Furthermore, the presence of significant differences in the participants' opinions according to their position would necessitate specific guidelines that would help the healthcare practitioners decide whether to allow the presence of family members during the invasive procedures in the pediatric intensive care unit.

Gold et al. argued that whether the presentation was helpful or detrimental to parents was a widely controversial topic and that staff should pertain to such situations [8]. Nevertheless, several international medical societies have recommended that families stay next to the child during invasive procedures and resuscitation. However, any radicalism to force adopting this attitude by all professionals should be avoided while condemning family members who prefer to be absent. Nevertheless, impositions that might compromise the treatment are yet lacking. Thus, the treatment protocols that include family presence during invasive procedures and emergency treatments would improve the treatment since it will bring more transparency to therapeutics [20].

## **Conclusion**

In conclusion, the present study revealed that all health care practitioners had the experience of having family member's current with their children in pediatric intensive care units. However, they had mixed opinions and attitudes regarding family members' presence with their children: more favouring than against the company. However, their views about attitude did not differ significantly according to their gender but their position.

Therefore, the development of written policies and guidelines is essential to help the healthcare practitioners, and families choose to be (or not to be) with their children during intensive care procedures.

## **Conflict of Interest**

The authors declare to have no conflict of interest regarding the publication of this article.

## Informed consent

All participants, such as pediatric and intensive care unit healthcare practitioners were included in this study after obtaining their informed consent.

## References

- Walker W. Accident and emergency staff opinion on the effects of family presence during adult resuscitation: Critical literature review. *J Adv Nurs* 2008; 61: 348-62.
- Al-Mutair AS, Plummer V, Copnell B. Family presence during resuscitation: A descriptive study of nurses' attitudes from two Saudi hospitals. *Nurs Crit Care* 2012; 17: 90-8.
- Mangurten J, Scott SH, Guzzetta CE, et al. Effects of family presence during resuscitation and invasive procedures in a pediatric emergency department. *J Emerg Nurs* 2006; 32: 225-3.
- Tripon C, Defossez G, Ragot S, et al. Parental presence during cardiopulmonary resuscitation of children: The experience, opinions and moral positions of emergency teams in France. *Arch Dis Child* 2014; 99: 310-5.
- Meert KL, Clark J, Eggly S. Family-centered care in the pediatric intensive care unit. *Pediatr Clin North Am* 2013; 60: 761-72.
- Rozdilsky JR. Enabling sibling presence in pediatric ICU. *Crit Care Nurs Clin* 2005; 17: 451-61.
- Davidson JE. Family presence on rounds in neonatal, pediatric, and adult intensive care units. *Ann Am Thorac Soc* 2013; 10: 152-6.
- Gold KJ, Gorenflo DW, Schwenk TL, et al. Physician experience with family presence during cardiopulmonary resuscitation in children. *Pediatr Crit Care Med* 2006; 7: 428-33.
- Stickney CA, Ziniel SI, Brett MS, et al. Family participation during intensive care unit rounds: Attitudes and experiences of parents and healthcare providers in a tertiary pediatric intensive care unit. *J Pediatr* 2014; 164: 402-6.
- Beesley SJ, Hopkins RO, Francis L, et al. Let them in: Family presence during intensive care unit procedures. *Ann Am Thorac Soc* 2016; 13: 1155-9.
- Powers KS, Rubenstein JS. Family presence during invasive procedures in the pediatric intensive care unit: A prospective study. *Arch Pediatr Adolesc Med* 1999; 153: 955-8.
- Bauchner H, Waring C, Vinci R. Parental presence during procedures in an emergency room: Results from 50 observations. *Pediatrics*. 1991; 87: 544-8.
- Wacht O, Dopelt K, Snir Y, et al. Attitudes of emergency department staff toward family presence during resuscitation. *Isr Med Assoc J* 2010; 12: 366-70.
- McClenathan CB, Torrington CK, Uyehara CF. Family member presence during cardiopulmonary resuscitation. *Chest* 2002; 122: 2204-11.
- Gupta PR, Perkins RS, Hascall RL, et al. The effect of family presence on rounding duration in the PICU. *Hosp Pediatr* 2017; 7: 103-7.
- Badir A, Sepit D. Family presence during CPR: A study of the experiences and opinions of Turkish critical care nurses. *Int J Nurs Stud* 2007; 44: 83-92.
- Davydow DS, Gifford JM, Desai SV, Needham DM, Bienvenu OJ. Posttraumatic stress disorder in general intensive care unit survivors: A systematic review. *Gen Hosp Psychiatr* 2008; 30: 421-34.
- Page NE, Boeing NM. Visitation in the pediatric intensive care unit: Controversy and compromise. *Advan Crit Care* 1994; 5: 289-96.
- Arigliani R, Arigliani M, Parola L. Patient and family centered care: A useful tool to integrate with guidelines. *Ital J Pediatr* 2015; 41: A3.
- Reis AG. Family presence during pediatric invasive procedures and resuscitation. *Rev Paul Pediatr* 2015; 33: 377-8.

## \*Correspondence to

Hassan Al-Shehri,  
 Department of Pediatrics,  
 College of Medicine  
 Al Imam Mohammad Ibn Saud Islamic University (IMSIU),  
 Riyadh  
 Kingdom of Saudi Arabia  
 Tel: + (966-1) 2580000  
 Email: [haalshetri@imamu.edu.sa](mailto:haalshetri@imamu.edu.sa)