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Parental Presence during Resuscitation and Invasive Procedures in the Emergency Department: Saudi Parents' Perspectives

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Introduction

Invasive procedures (IPs) and resuscitation interventions (RIs) can be frightening and painful experiences for both children and parents. Positive outcomes of parental presence include less anxiety and fear about their children [1,2] remove any confusion about patient's situation and allow them to observe everything possible was being offered [3,4], and maintain family unity [4,5]. Several studies have emphasized the value of parental presence and have recommended setting institutional guidelines [6-10]. Until recently, many institutions had not yet set or effectively implemented any guidelines [11-15]. Instead, parents are dismissed by health professionals during IPs or RIs.

Health professionals have attempted to balance their ethical duties towards children and parents (i.e., a family-centred approach) with their comfort in RIs or performing IPs on children (i.e., a professionals' efficiency approach); yet, this dilemma is still unresolved [16]. In regard to family-centred approach, in the emergency department (ED), parents make their own decision whether they will stay with their child or not during IPs or RIs. Previous studies have revealed that majorities of the parents prefer to stay with their children in the ED [4,17-20] although paediatricians were uncomfortable with their presence during these procedures [21]. Bauchner et al. in 1996 reported that parental presence did not negatively affect the performance of the procedures or increase clinician anxiety [20]. It also reduces the distress score for both parent and the patient in the ED [22]. Parents' decision to stay or leave the ED is frequently made by themselves without asking the physician's opinion [4]. Boie et al. surveyed 400 parents, and found that parental desire to be present in the ED decreased while the procedural invasiveness increased. Most of the parents wanted to be present in the ED if their child were likely to die and most of them (94%) did not want the physician to determine unilaterally about their presence [23].

The debate on parental presence during IPs and RIs still continue. Researchers globally have published several reports on this subject. However, the majority of these studies have focused on nurses' and physicians' attitudes and values. The amount of studies aimed at parental perspectives is lacking. To our knowledge, this is the first study from the Middle East region to evaluate parental willingness to attend RIs or IPs on their children.

Methods

Participants

We performed a cross-sectional descriptive study and administered a self-administered, anonymous questionnaire to the parents only. Any parent could complete the questionnaire regardless of age of the parent or ages of the children. Parents were excluded from the study if they were emotionally disturbed, involved in suspected child abuse, combative, and had altered mental health status.

Data collection tool

Six different hypothetical scenarios from least to most invasive to establish a hierarchy of procedural invasiveness were provided for their ill child (e.g., blood sampling, urinary bladder catheterization, wound suturing, lumbar puncture, endotracheal intubation, and cardiopulmonary resuscitation). We assessed the parents' willingness to attend each of these procedures, their reasons for attending or not attending, and the demographic factors such as age, gender, education, marital status, number of children, and employment status affecting their choices. To validate the content of the study tool, expert clinicians and ethicists independently reviewed the scenarios and choices. Furthermore, a pilot study was conducted, and the questionnaire was administered to a small group of participants to test for language clarity and to ensure adequate understanding of the scenarios and responses.

Procedures and data collection

Three major hospitals' EDs were chosen: King Abdul Aziz Medical City and King Fahad Medical City in Riyadh, and Maternity and Children Hospital in Jeddah. Over a period of four months, all the parents presented to the EDs during randomly chosen ED shifts (morning, afternoon, evening, and night) during weekdays and weekends, and they were approached by trained research assistants. The selected parents had to be in the ED waiting rooms with his/her ill child. The research assistants explained the study objectives to the parents, answered any questions, and asked them to imagine their children in the aforementioned hypothetical scenarios. All the participants provided written consent prior to participation. Parents were asked to complete the questionnaire voluntarily and anonymously. There was no incentive for returning the questionnaire.

Data analysis

Descriptive analysis was performed on parents' socio-demographics (age, gender, education, marital status, number of children, and employment status). Odds ratio and corresponding 95% confidence interval was calculated for each of the potential explanatory variables in relation to the outcome. The data were analysed using Statistical Analysis System (SAS) Software (Version 9.1.3; SAS Institute, Cary, NC).

Ethical approval

The study was approved by the Institutional Review Board (IRB) of the King Abdullah International Medical Research Centre (KAIMRC).

Results

We enrolled 504 parents (58% female) in the study and had an 83% response rate. The majority (53%) were < 30 years and were married (98%). Around 55% had more than a high school education, and 51% were employed. Almost 80% of the participants had at least two children (Table 1).

	Number (%)
Age	
< 30 years	267 (53)
≥ 30 years	237 (47)
Gender	
Male	212 (42)
Female	292 (58)
Children	
< 2	101 (20)
≥ 2	403 (80)
Marital Status	
Married	494 (98)
Single/Divorced/Widowed	10 (2)
Education	
≥ High school	277 (55)
< High school	227 (45)
Employment	
Employed	257 (51)
Unemployed	247 (49)

Table 1: Demographic characteristics of parents (n=504).

The percent of parental willingness to attend procedures decreased as the invasiveness of the procedure increased (Table 2). Approximately 88% wanted to be present during blood samplings; however, only 65% wanted to attend endotracheal intubations. Interestingly, only 55% wanted to attend lumbar punctures, and about half wanted to attend their children's cardiopulmonary resuscitations.

Procedures	Number (%)
Blood Sampling	444 (88)
Urinary Bladder Catheterization	407 (81)
Wound Suturing	355 (70)
Lumbar Puncture	279 (55)
Endotracheal Intubation	327 (65)
Cardiopulmonary Resuscitation	262 (52)

Table 2: Parental willingness to attend invasive procedures or cardiopulmonary resuscitation (n=504).

The most common reason for a parent to attend a procedure was to soothe the anxiety of his/her child (58%). However, about 39% of parents felt that their child was too young to undergo a medical procedure alone, and 31% wanted to assist healthcare workers during the procedure (Figure 1). The most common reasons for parents to attend cardiopulmonary resuscitation were to assist in resuscitation (56%) or to watch the resuscitation efforts (50%) (Figure 2). The sex of the child was not a reason for parents to attend any of the IPs or cardiopulmonary resuscitations.

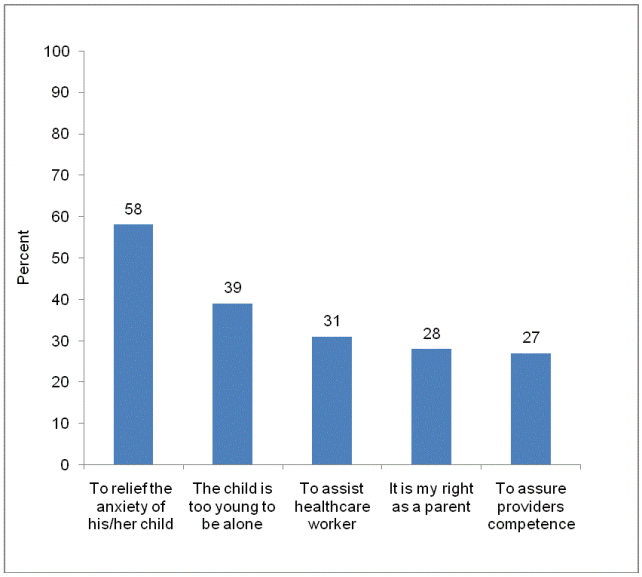

Figure 1: Reasons for parents to attend invasive procedures.

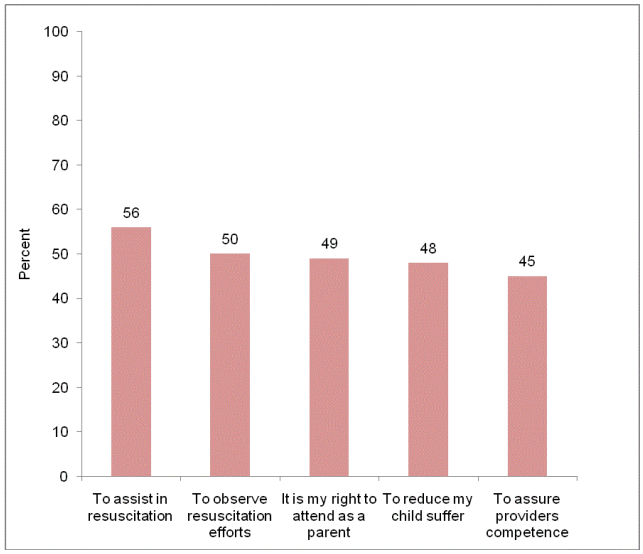

Figure 2: Reasons for parents to attend cardiopulmonary resuscitation.

However, if being present during any of the procedures was optional, the most common reason for parents to refuse to attend an IP was their intolerance of the scene (56%), followed by trusting the health professionals (22%) whereas reasons for parents to refuse to cardiopulmonary resuscitation were intolerance of the scene (40%) followed by parental presence can make the health professional anxious (24%). The reasons for refusing to attend IPs and cardiopulmonary resuscitation are summarized in Figures 3 and 4, respectively (Figure 3,4).

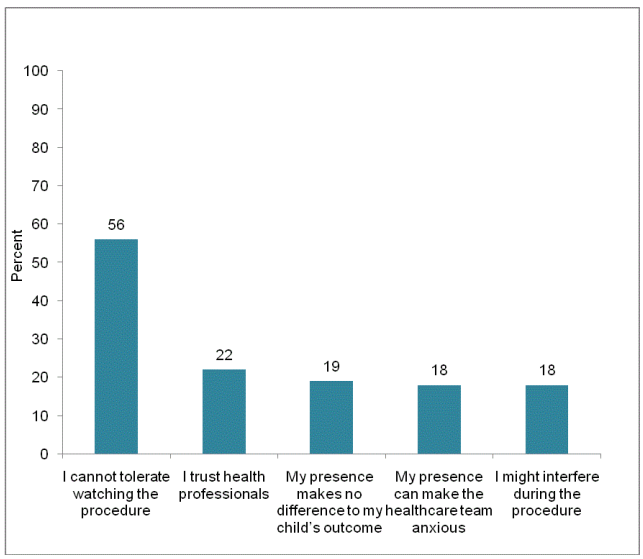

Figure 3: Reasons for parents to refuse to attend invasive procedures.

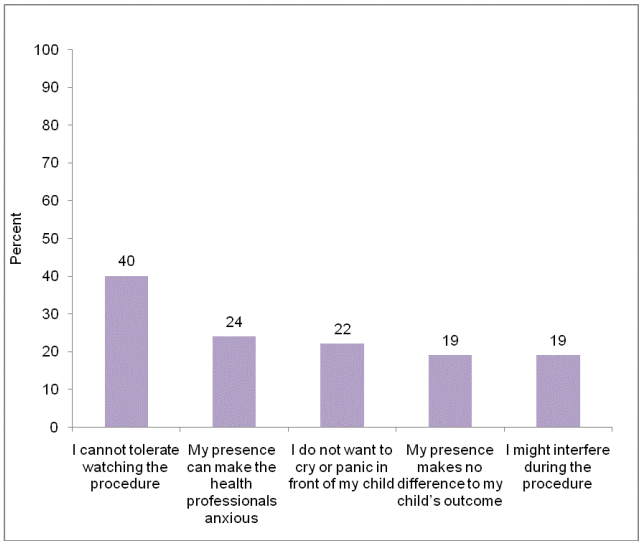

Figure 4: Reasons for parents to refuse to attend cardiopulmonary resuscitation.

Female (OR=6.2, CI=1.2-32.4) and having a single child (OR=7.0, CI= 1.33-36.7) were the major determinants in the parents' reasoning. Age, education, or employment of the parents did not show any significant relationship. The outcome of the resuscitation (successful or futile) had no significant impact on the parents' willingness or reasons to attend their child's resuscitations.

Discussion

Several studies and guidelines have recommended parental presence to decrease child and parent anxiety, decrease their negative attitudes, and improve parents' understanding of the procedure itself [24-29]. Parents may be reluctant to ask, but health professionals should offer the opportunity to attend these procedures whenever possible [30]. During RIs, the parents' presence will positively impact the way that they will deal with grief and negative emotions if the process is futile [8,31-33]. Nevertheless, parents are often dismissed by health professionals, mostly by nurses and residents regardless of their wishes. The lack of written policies supporting parental presence supports this behaviour [34-36]. Only a few physicians and nurses (mostly senior ones) believe in parental presence [23,37]. This apprehension from health professionals stems from nurses' and clinicians' fears that parental presence will increase the anxiety of the child, parents, and professionals [6,38-42]. Another common belief among health professionals is that parental presence may have a negative impact on decision making abilities, which have a detrimental effect on the procedures or resuscitation success [27,38,43,44].

This study showed that women and parents of a single child are more likely to attend IPs or cardiopulmonary resuscitations performed on their children. Similar to other studies, the rate of parental willingness to attend is inversely related to the invasiveness of the procedure [23,34]. In published reports and practice, health professionals tend to discourage parental presence as the invasiveness of the procedure increases [37,45]. Among all the IPs, we noticed that a significant percent of parents declined attending lumbar puncture, in particular. This finding may explain the high dissent rates health

professionals' face when attempting to obtain informed consent for the procedure. Learning more about the procedure by allowing parents to attend and providing them with adequate explanation may help alleviate this problem [46-48].

In contrast to health professionals' beliefs, the majority of parents in our study wanted to attend IPs to actively reduce their child's anxiety. Other studies on the parents' perspective in these situations support this finding [19,23]. In cases of cardiopulmonary resuscitation, more than half of the parents felt that they could assist the health professionals or at least observe their efforts. Half of the parents were also reluctant to attend, because they may not tolerate watching the IPs or cardiopulmonary resuscitation. Health professionals should explain the procedure to parents and describe what they might see. In addition, a careful assessment of the parents' behaviour (e.g., combative or emotionally disturbed) before the procedure will help guide the decision [49]. The health professional's anxiety during IPs or cardiopulmonary resuscitation was not considered by the majority of parents; therefore, this was not a reason for them to decline attendance. Performing under the stress of parental presence and actively engaging and educating them during IPs or RIs should take place early in the professionals' training, because it will make it easier for them to handle these situations in the future [49-52]. This practice is endorsed for minor procedures as well as IPs and RIs when taking the parents' wishes into consideration [19].

There were some limitations to this study. The participants' provided responses to hypothetical scenarios, not real ones that they were experiencing. Additionally, the study focused only on the parents' perspectives and did not include the health professional's perspectives in Saudi Arabia. We recommend conducting further local and regional studies to complement our findings; however, our novel findings in this region are encouraging, and they align with other data across the world.

Conclusions

After explaining the IPs or RIs process and in the absence of clear indicators of misbehaviour, parents should be given the option to attend these procedures when they are performed on their children. Hospitals in Saudi Arabia and Asia should develop and implement clear guidelines on parental presence. Raising parents' awareness about their right to stay with their children should also be encouraged. Lastly, the health professionals' misconceptions about parental rights and reactions as well as procedural anxiety need to be addressed in medical and nursing educational curricula.

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Competing Interests

The authors declare that they have no competing interests.

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