

## Evaluation of Patients' Families' Attitudes to Witnessing Invasive Procedures in the Emergency Department

Hasta Yakınlarının Acil Serviste Yapılan Girişimsel Uygulamalar Sırasında Hastalarının Yanında Bulunabilme İsteği İle İlgili Görüşlerinin Değerlendirilmesi

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### Abstract

**Objective:** The aim of this study was to evaluate patients' family members' attitudes to witnessing medical care and emergency procedures in an adult emergency department.

**Material and Methods:** A prospective study was performed at a university emergency department (ED) in Turkey. A survey form with the face-to-face method was used. The relationship between the patients' family members' answers and their sociodemographic status was evaluated. Chi square test was used and  $p < 0.05$  was considered as statistically significant.

**Results:** A total of 454 patients' family members were included in the study. Some 66.5% of them stated that their presence during invasive procedures could prevent physicians from providing optimal care and 13.4% of participants stated that being present by the patient's side improved the physician's performance. The question 'Is it the patient's right to have someone by his/her side?' drew positive answers from 87.9% of them. A statistically significant difference was found between the level of education and the desire to witness resuscitation ( $p=0.002$ ).

**Conclusion:** In this study we did in the emergency department, increasing number of family members request to witness invasive procedures on their patients. Family members also think witnessing procedures is a right of both patients and family members. (*JAEM 2013; 12: 61-5*)

**Key words:** Resuscitation, family, invasive procedures, emergency medicine

### Özet

**Amaç:** Çalışmanın amacı, bir erişkin acil serviste tıbbi bakıma ve acil girişimlere hasta yakınlarının tepkilerinin değerlendirilmesidir.

**Gereç ve Yöntemler:** Çalışma Türkiye'de bir üniversite acil servisinde prospektif olarak gerçekleştirilmiştir. Çalışmada yüzyüze görüşme yöntemiyle, bir anket formu doldurulmuştur. Hasta yakınlarının cevaplarıyla sosyodemografik durumlarının ilişkisi değerlendirilmiştir. Çalışmada ki-kare testi kullanılmıştır ve  $p < 0,05$  değeri istatistiksel olarak anlamlı kabul edilmiştir.

**Bulgular:** Toplam 454 aile yakını çalışmaya katılmıştır. Katılımcıların %66,5'i invaziv girişimler sırasında hastaların yanında durmalarının, hekimlerin uygun tıbbi bakımı vermelerini engelleyebileceğini belirtmişlerdir. Katılımcıların %13,4'ü, hastaların yanında durmalarının hekim performansını artıracığını belirtmişlerdir. "Hastanın yanında bir başka kişiyi isteme hakkı var mıdır?" sorusuna %87,9 oranında olumlu cevap alınmıştır. Eğitim düzeyiyle, resusitasyona tanıklık etme isteği arasında istatistiksel anlamlı fark bulunmuştur ( $p=0,002$ ).

**Sonuç:** Acil serviste yaptığımız bu çalışmanın sonucuna göre, hastaların aile yakınlarının artan oranda girişimsel işlemlere eşlik etme isteği mevcuttur. Aile üyeleri aynı zamanda işlemlere refakat etmelerinin, kendileri ve hasta açısından bir hak olduğunu düşünmektedirler. (*JAEM 2013; 12: 61-5*)

**Anahtar kelimeler:** Resusitasyon, aile, invaziv girişimler, acil tıp

### Introduction

Allowing a patient's family to witness invasive procedures or resuscitation efforts has been an increasing trend lately. 'Family-present care' protocols include not only resuscitative care but also performance of other invasive procedures such as catheter placement, lumbar puncture, and electroshock therapy while family members are

present. Some institutions allow families to witness such procedures, especially those performed on paediatric patients (1). Studies show patients' family members support such procedures, whereas health-care providers have certain concerns regarding the concept (2, 3).

Providing family-witnessed care, especially during resuscitative procedures in emergency departments, is not common practice in Turkey. A survey was designed to reveal emergency physicians' views

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on the subject (2). Another study performed at the same centre demonstrated the patients' family members' satisfaction level after witnessing cardio-pulmonary resuscitation (CPR) (4). A recent study conducted in Turkey evaluated patients' attitudes to witnessing care given to their family members (5).

In this study, we aimed to evaluate patients' family members' attitudes to witnessing medical care and emergency procedures in an adult emergency department (ED).

## Material and Methods

This prospective study enrolled 454 relatives of patients admitted to the emergency department of a university hospital in June 2007. Relatives who agreed to be interviewed were enrolled in the study. The present emergency department admits only patients over 18 years of age. Local ethics committee approval was obtained prior to the study. Gazi University Ethical Board approved the study on 28 May 2007 (Decision Number 178). Informed consent was obtained from close relatives of the patients before they completed the survey.

### Data collection

A 17-item questionnaire was used for data gathering. The questionnaire was prepared by evaluating previous studies which investigate the opinions of relatives and medical staff about the presence of relatives during emergency interventions and a review of literature on the subject. The questionnaire was administered by the researcher in face-to-face interviews. The questionnaire included data about the sociodemographic characteristics and residential area of the participants, the hour of admission to the emergency department, the emergency room in which the patient was treated, and the day of admission (weekend or workdays).

The relationships between the answers of the participants about being present with the patient during the emergency medical interventions and their sociodemographic characteristics were investigated in the light of the data collected by the questionnaire. The face-to-face interviews were performed with patients' relatives after the primary assessment of the patient was performed by the doctor in the triage division of the emergency department and while the doctor in the emergency department was examining the patients.

In order to make sure that all of the patients' relatives were included the patient registration book was used as a source. The answers were recorded voluntarily by a senior doctor not on duty on that particular day who asked the questions sequentially, after patients' relatives were informed about the study and were happy to participate. Some of the patients' relatives did not want to answer the questionnaire at that time and they were excluded from the study. Those who agreed to answer the questionnaire after the clinical condition of their relative had been stabilised were also enrolled in the study.

### Statistical analysis

The data were analysed with the SPSS v.15.0 (Chicago, Il.). The relationship between the patients' family members' answers and their sociodemographic status was evaluated. Chi square test was used for statistical comparison and  $p < 0.05$  was considered statistically significant.

## Results

A total of 515 patients' family members were enrolled in the study. A flow chart of the study is shown in Figure 1. University graduates comprised the largest percentage of the participants by 54.6%

( $n=248$ ) (Table 1). Of the 454 patients' family members, 323 (71.1%) were present in the ED on weekdays. Two hundred and seventy-eight patients (61.2%) were taken to the examination rooms following triage, 122 (26.9%) patients were taken to the minor surgical intervention room and 54 (11.9%) were taken straight into the resuscitation room in the ED.

When asked if they wanted to be by their relative's side during invasive procedures such as central catheter placement, intravenous cannulation, CPR and electroshock therapy, 346 (76.2%) of the family members answered positively. Three hundred and two (66.5%) of the family members stated that their presence during the invasive procedures and resuscitation could prevent physicians from providing optimal care (Table 2).

Sixty-one (13.4%) participants stated that being present by the patient's side improved the physician's performance during interventions, whereas 96 (21.1%) stated it would prevent physicians

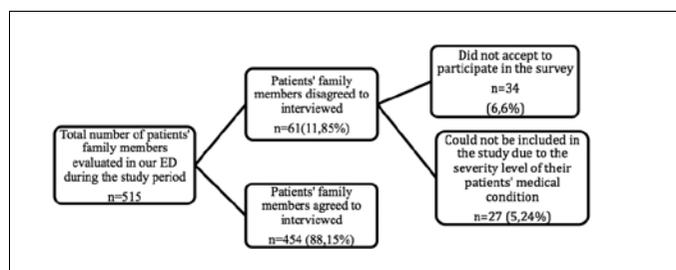


Figure 1. Flow chart of the study

Table 1. Sociodemographic features of the participants

	n	%*
<b>Gender</b>		
Male	263	57.9
Female	191	42.1
<b>Education</b>		
Primary	68	15.0
High school	138	30.4
Higher education	248	54.6
<b>Marital status</b>		
Married	286	63.0
Single	156	34.4
Widowed/divorced	12	2.6
<b>Occupation</b>		
Unemployed/student	134	29.5
Self-employed	117	25.8
State employee	177	39.0
Employer	9	2.0
Retired	17	3.7
<b>Age</b>		
18-25	113	24.9
26-35	120	26.4
36-45	106	23.3
46 and above	115	25.3
*Percentages are the percentage of colon		

from performing their duties effectively and 297 stated it would not have any influence on the physician's performance. Two hundred and twenty-seven (72%) of the participants stated that they felt physicians did not allow family members to witness interventions because they could not perform their duties comfortably (Table 3).

Two hundred and twenty-one (48.7%) participants answered the question, 'Would witnessing care provided to your relative cause you stress and anxiety?' positively. Three hundred and thirty-two (83.1%) participants stated that being by their relative's side would not create additional stress in the patient. Three hundred and thirteen (68.9%) of the participants stated that they would want to have a family member by their side if they had to undergo interventions. Of those, 274 (60.4%) stated they would want someone special by their side, 105 (23.2%) wanted their spouse, 96 (21.1%) wanted any family member, and 18 (4%) stated they would want their girlfriend/boyfriend or a good friend to be present.

In response to the question 'Would you want to be by your relative's side if his/her condition is severe and procedures such as intubation and resuscitation are needed?', 203 (44.7%) participants stated they would want to witness the procedures. Two hundred and

forty-nine (54.8%) stated they would want to have physical contact (especially holding hands) with the patient and 241 (53.1%) stated they would want to pray.

A statistically significant difference was found between family member's sex and his/her willingness to be by his/her relative's side ( $p < 0.001$ ). A greater number of female family members responded positively on this question. When the age groups of the family members were reviewed, a greater number of the 18-25 year group had provided positive answers to the same question ( $p = 0.004$ ).

A greater number of the female family members chose to communicate the perceived mistakes made by the same healthcare provider during resuscitation, creating a statistically significant difference when compared with males ( $p = 0.018$ ) (Table 4). Even though the number of positive answers about applying physical violence decreased as the level of education of the family members increased, no statistical significance was noted ( $p = 0.435$ ). Similarly, no difference was noted when the question 'Does it make it easier for you to accept the loss of your relative when you witness unsuccessful resuscitation?' was asked of family members.

### Discussion

In this study in the emergency department, increasing numbers of family members asked to witness invasive procedures on their relatives. Family members also thought witnessing procedures was the right of both the patients and their family members.

Allowing a patient's family to witness interventions and resuscitation efforts has become a common approach lately. This approach has attracted both support and criticism (1). In a study conducted by Boie et al. (6), 400 families were asked about their desire to witness procedures on their children in the ED. Of those, 65.3% stated that they wished to be by their child's side in any case. There was found to be a statistically significant relationship between the participants' answers and their age and level of education. We found in our study that 76.2% of the patients' family members indicated a desire to witness procedures performed on relatives. Although we were not able to determine a significant relationship between age and level of education, we found that the results displayed a tendency to be affected by the level of education of the family members.

In another study completed by Benjamin et al. (7), 77.8% of patients and family members answered positively when asked whether they wanted family members to witness procedures. Patients' sex and level of education did not affect the results, whereas a significantly greater number of younger patients asked for family members to be by their side. Similarly, our study found that a greater number of younger patients requested family members to be by their side during procedures. The level of education of the patients did not have

**Table 2.** Views of patients' family members on being present by the patients' side during interventions

	n	%*
Would you want to be by the patient's side during invasive interventions?		
Yes	346	76.2
No	108	23.8
Do you think being present by the patient's side could prevent physicians from performing their duties effectively?		
Yes	302	66.5
No	152	33.5

\*Percentages are the percentage of colon

**Table 3.** Family members' thoughts about physicians' reasons for not allowing family members to witness interventions

	n	%*
Not being comfortable while working	327	72.0
Inconvenient physical environment	202	44.5
Family members cannot handle the situation	185	40.7
Possibility of being misunderstood	125	27.5

\*Multiple answers have been given

**Table 4.** The relationship between sociodemographic features and attitudes of patients' family members when encountering healthcare provider's malpractice (reporting it to the healthcare provider) and the relationship between sociodemographic features and the answers to two questions

	Gender	Yes (n, %)	No (n, %)	p value
Reporting of malpractice	Male	122 (46.4%)	141 (53.6%)	0.018
	Female	110 (57.6%)	81 (42.4%)	
'Is it the patient's right to have someone by his/her side during a medical intervention?'	Male	222 (84.4%)	41 (15.6%)	0.008
	Female	177 (92.7%)	14 (7.3%)	
'Is it the patient's family members' right to be at the patient's side during a medical intervention?'	Male	186 (70.7%)	77 (29.3%)	0.002
	Female	159 (83.2%)	32 (16.8%)	

any effect on the answers provided.

The percentage of positive answers regarding desire to witness procedures on patients was found to be 80% in the study conducted by Meyers et al. (8), 73.1% in Ong et al. (9), and 77.8% in Benjamin et al. (7) Our finding, which was 76.2%, is consistent with the literature.

In a study conducted by Yaka et al., (4) the rate of satisfaction of family members after witnessing cardio-pulmonary resuscitation procedures was evaluated. Of the 23 procedures witnessed, in 95.7% of the cases physicians leading the resuscitation teams stated they were not affected by the presence of family members. At a one-week follow-up, all of the patients' family members stated that witnessing the cardio-pulmonary resuscitation was the right decision for them.

Yanturalı et al. (2) found the following reasons for physicians' decisions not to allow family members to witness resuscitation: potential to increase resuscitation team anxiety, potential to cause psychological trauma in family members, potential to affect decisions on when to end the resuscitative efforts, potential risk of physical violence, potential to reduce success and potential risk of verbal abuse. These findings are consistent with the answers given by family members to the question 'Why do you think physicians do not want to allow you to witness the resuscitation procedures?' in our study.

In a study conducted among healthcare providers by Redley et al. (3), 48% of the providers indicated concern over the possibility of being disturbed by the presence of patients' family members, 46% mentioned the possibility of interruption of resuscitation efforts and 18% indicated the possibility of increased liability when allowing family members to witness procedures (3). In our study, 40.7% of the family members stated that they would not be able to handle witnessing procedures on their relatives as the primary reason for physicians not allowing family members to witness such procedures, whereas 27.5% thought the reason they would not be allowed to witness such procedures was because of the physicians' concern about increased liability and potential risk of medico-legal problems. Seventy-two per cent of the participants also said they were not comfortable during resuscitation and other invasive procedures in the presence of family members and cited it as the possible reason for physicians not allowing family members to be by the patient's side.

Grice et al. (10) found that 38 (69%) of patients and 46 (84%) of family members believed witnessing invasive procedures could cause anxiety and increased stress in the medical team. We found in our study that 48.7% of the family members thought that their level of anxiety might increase if they witnessed procedures and 26.9% of them thought the level of stress of their relatives might increase if they were present in the room.

In their study, Bauchner et al. (11) found that age, sex, race, marital status and level of education did not have any effect on the answers provided by family members on witnessing invasive procedures. The answer to the question 'Would you like to be by the patient's side during resuscitation?' was similar to the above-mentioned study (except for the relationship with the level of education).

Meyers et al. (8) found in their study that 97.5% of family members thought it was their right to be present by their relative's side during invasive procedures. In our study, 87.9% of the family members stated it was a patient's right to ask for a family member to be present during such procedures, whereas 76% thought it was a right of family members. Sex of family members created a statistically significant difference in response to this question: female family members saw it more as a right for both patients and family members.

Ersoy et al. (12) determined the attitudes of relatives of patients regarding witnessed resuscitation and they elucidated the sociodemographic variables affecting their perspectives. In that study most

of the participants (66.4%) stated that they would wish to observe CPR performed on their family members. We found in our study that 76.2% of the patients' family members indicated a desire to witness procedures performed on relatives.

### Study Limitations

The family members' particular experiences and the procedures that had been performed were not noted on the survey forms. In our study, only views of patients' family members who were in the emergency unit environment were taken into account. The study could be expanded to include views of populations outside the hospital. This study was conducted in just one centre in Turkey. The results may not be generalisable to other countries or even to the general population of Turkey and as our hospital is a university hospital it is possible that there are some regional differences related to cultural and social variables.

### Conclusion

In this study we observed that an increasing number of family members ask to witness invasive procedures on their relatives. Family members also think that witnessing such procedures is the right of both patients and their family members.

Hospitals could develop protocols which clearly define the conditions under which family members are allowed to witness procedures, by whom such permission is provided, the rules to be observed by family members during witnessing of procedures, how and by whom the family member briefing will be conducted and who should escort the family members to witness invasive procedures.

### Conflict of Interest / Çıkar Çatışması

No conflict of interest was declared by the authors.  
*Yazarlar herhangi bir çıkar çatışması bildirmemişlerdir.*

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### Author Contributions / Yazar Katkıları

Concept / *Fikir* - G.K.Ç.; Design / *Tasarım* - G.K.Ç., A.K.; Supervision/ *Denetleme* - A.D., F.B., Ö.E.; Data Collection and/or Processing / *Veri toplanması ve/veya işlemesi* - G.P.G., M.E.; Analysis and/or Interpretation / *Analiz ve/veya yorum* - G.K.Ç., M.İ.; Literature Review / *Literatür taraması* - G.K.Ç., M.E., G.P.G.; Writer / *Yazıyı yazan* - G.K.Ç.; Critical Review / *Eleştirel İnceleme* - G.K.Ç., N.Ö.D.

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