Attitudes and perceptions of the general Malaysian public regarding family presence during resuscitation

Keng Sheng Chew1, MD, MMed, Zuhailah Abdul Ghani1, MD, MMed

INTRODUCTION Family presence (FP) during resuscitation is an increasingly favoured trend, as it affords many benefits to the critically ill patient's family members. However, a previously conducted study showed that only 15.8% of surveyed Malaysian healthcare staff supported FP during resuscitation.

METHODS This cross-sectional study used a bilingual self-administered questionnaire to examine the attitudes and perceptions of the general Malaysian public toward the presence of family members during resuscitation of their loved ones. The questionnaires were randomly distributed to Malaysians in three different states and in the federal territory of Kuala Lumpur.

RESULTS Out of a total of 190 survey forms distributed, 184 responses were included for analysis. Of the 184 respondents, 140 (76.1%) indicated that they favoured FP during resuscitation. The most common reason cited was that FP during resuscitation provides family members with the assurance that everything possible had been done for their loved ones (n = 157, 85.3%). Respondents who had terminal illnesses were more likely to favour FP during resuscitation than those who did not, and this was statistically significant (95.0% vs. 73.8%; p = 0.04).

CONCLUSION FP during resuscitation was favoured by a higher percentage of the general Malaysian public as compared to Malaysian healthcare staff. This could be due to differences in concerns regarding the resuscitation process between members of the public and healthcare staff.

Keywords: family presence, invasive procedures, Malaysian, resuscitation

INTRODUCTION

Family presence (FP) is described as "the presence of family in a patient care location that affords visual or physical contact with the patient during invasive procedures or resuscitation events".(1) FP during resuscitation is an increasingly favoured trend among patients and their family members due to the benefits it affords. For instance, it allows the patient's family members to comfort their loved ones during invasive procedures and the resuscitation process. It also provides space for the grieving process and an opportunity for the patient's family members to bid farewell should the patient be on the verge of dying. (1,2) In addition to the aforementioned benefits, FP can help increase the family members' understanding of the seriousness and reality of the patient's medical condition, thus improving the quality of the decisions made. (3) A Turkish study conducted on 420 families found that up to 66.4% of family members would like to be present during resuscitation of their loved ones. (4) However, a study conducted on the general public's perception on witnessed cardiopulmonary resuscitation suggests that the opinion of the general public on this issue is more divided than that of patients' family members. (2) Among healthcare staff, nurses were found to be more in favour of FP during resuscitation than physicians. (5)

One of the authors of the present study was involved in a survey conducted to evaluate the attitude of Malaysian healthcare staff toward FP during resuscitation. (6) In that study, only 15.8% of the 270 healthcare staff who participated in the survey showed a positive attitude toward FP during resuscitation, although

38.5% of them agreed that the patient's family members have a right to be present during resuscitation and procedures. The study also revealed that doctors were more than twice as likely as paramedics to agree with the practice of FP. This is likely due to the work culture in Malaysian healthcare systems, where paramedics usually adopt a 'follow-the-leader' attitude in their work practices. (6) As the perception of Malaysian healthcare staff towards FP during resuscitation had been studied, we conducted a cross-sectional study to determine the attitude of the adult (aged \geq 18 years) Malaysian population regarding the same issue. We also sought to determine the factors affecting their decisions.

METHODS

A bilingual (English and Malay language) self-administered questionnaire was used for the purpose of this study. The questionnaire was developed based on the questionnaire used in a previous study. (6) To assess the reliability and validity of the questionnaire, a pilot study that involved 60 participants was conducted in July 2011 with the help of biostatisticians in our medical school. After the reliability and validity of the questionnaires were found to be satisfactory, the questionnaires were then randomly distributed to Malaysians in three different states of Malaysia (i.e. Melaka, Penang and Kelantan), as well as the federal territory of Kuala Lumpur. Participants were members of the general Malaysian public who were randomly approached in different settings, such as the waiting area of clinics in Kuala Lumpur General Hospital, school premises, government offices, and the neighbourhood of certain pre-identified housing areas

¹Emergency Medicine Department, School of Medical Sciences, Universiti Sains Malaysia, Malaysia

in Kuala Lumpur and the three states. Participants were selected through convenience sampling.

The purpose of the survey was explained verbally, and consent was obtained from every person who volunteered to participate in the study. The survey forms were handed out in person by one of the authors of the study. After the form was completed by the participants, they were sealed in an opaque envelope and returned. Survey forms that were not filled (i.e. blank), illegible or damaged were excluded from the data analysis. The study was conducted for a period of six months, from June 2012 to December 2012. Approval for the study was obtained from the research ethics committee board of our institution. Statistical analyses were conducted using the Statistical Package for the Social Studies version 16.0 (SPSS Inc, Chicago, IL, USA).

RESULTS

Of the 190 survey forms distributed, 184 were used for data analysis (six forms were excluded, as they were either blank, illegible or damaged). The mean age of the participants was 31.6 (range 19–55) years, and a larger proportion was female (n = 116, 63.0%). In terms of the participants' educational level, 4 (2.2%) had a master's or PhD degree, 38 (20.7%) had basic degrees, and 85 (46.2%) had diplomas. The remaining 57 (31.0%) participants had secondary school level education.

A total of 140 (76.1%) participants answered 'yes' to the question of whether family members should be allowed to be present during resuscitation, and 150 (81.5%) answered 'yes' to the question of whether family members have a right to be present during resuscitation (Table I). With regard to the benefits of allowing FP during resuscitation, the most common reason given was that it provides family members with the assurance that everything possible has been done for their loved ones (n = 157, 85.3%). This is followed by the advantage of allowing the final religious rites to be performed for the patients (n = 99, 53.8%). Only one participant responded that FP does not offer any benefit. Participants who had terminal illnesses were more likely to favour FP during resuscitation than those who did not, and this difference was statistically significant (95.0% vs. 73.8%, p = 0.04; Table II).

DISCUSSION

Although FP during resuscitation has already been advocated in the West, ⁽⁷⁾ the concept is still relatively new in Asia. ⁽⁸⁾ However, as the general public becomes more knowledgeable concerning diseases because of the rapid dissemination of information via information technology, the traditional approach of excluding patients and family members from medical decision-making is increasingly out of fashion, even in the Asian setting. Patients and family members are also less likely to accept verdicts and decisions from healthcare authorities without question.

In the present study, we found that a majority of the Malaysians surveyed (n=140, 76.1%) believed that family members should be allowed to witness resuscitation and invasive procedures. This is in contrast to the findings of a previous study conducted on Malaysian healthcare staff, in which only 15.8%

Table I. Descriptive analysis of the attitudes of the general Malaysian public (n = 184) toward family presence during resuscitation.

Should the presence of family members be allowed during resuscitation? Yes	public (n = 184) toward family presence during resus	
Yes	Question	No. (%)
Yes 140 (76.1) No 44 (23.9) Do family members have a right to be present during resuscitation? 44 (23.9) Yes 150 (81.5) No 34 (18.5) In the event of resuscitation, when should family members be allowed to be present? 13 (7.1) After all necessary invasive procedures have been performed 67 (36.4) During the entire resuscitation process 104 (56.5) Which of the following procedures should the family members be allowed to witness? 88 (47.8) Bloody procedures 135 (73.4) Cardiopulmonary resuscitation 140 (76.1) Examination of private parts 74 (40.2) None 22 (12.0) What is the ideal number of family members that should be allowed to witness the resuscitation? 0 0 21 (11.4) 1 64 (34.8) 85 (46.2) 3 2-3 3 14 (7.6) 174 (94.6) 15 (10 (5.4) 174 (94.6) 16 (10 (5.4) 174 (94.6) 16 (10 (5.4) 174 (94.6) 17 (10 (5.4) 174 (94.6) <	· · · · · · · · · · · · · · · · · · ·	
Do family members have a right to be present during resuscitation? Yes 150 (81.5) 34 (18.5) 34		140 (76.1)
Ves	No	44 (23.9)
Yes	Do family members have a right to be present	
In the event of resuscitation, when should family members be allowed to be present? Never 13 (7.1) After all necessary invasive procedures have been performed During the entire resuscitation process 104 (56.5) Which of the following procedures should the family members be allowed to witness? Bloody procedures 88 (47.8) Non-bloody procedures 135 (73.4) None 22 (12.0) What is the ideal number of family members that should be allowed to witness the resuscitation? O 21 (11.4) 1 64 (34.8) 85 (46.2) 13 (73.4) 174 (94.6) 10 (5.4) In your opinion, which of the following are benefits of allowing family members that grid in the family members that grid in the family members that everything possible has been done 1t aids in the family members that everything possible has been done 1t aids in the family members to give final religious rites None 1 (0.5) In your opinion, which of the following are reasons to not allow family presence? It is a traumatic experience 129 (70.1) myour opinion, which of the following are reasons to not allow family presence? It may have medicolegal implications 1 (0.5) In your opinion, which of the following are reasons to not allow family presence? It may constitute a breach of privacy 30 (16.3) 1t may constitute a breach of privacy 30 (16.3) 1t may constitute a breach of privacy 30 (16.3) 1t may constitute a breach of privacy 30 (16.3) 1t may constitute a breach of privacy 30 (16.3) 1t may constitute a breach of privacy 30 (16.3) 1t may constitute a breach of privacy 30 (16.3) 20. Which of the following family members should be allowed in the resuscitation room? Parents of paediatric patients 174 (94.6) 85 (84.2) 43 (23.4) 155 (84.2) 43 (23.4) 155 (84.2) 43 (23.4) 155 (84.2) 43 (23.4) 155 (84.2) 43 (23.4) 155 (84.2) 43 (23.4) 155 (84.2) 43 (23.4) 155 (84.2) 43 (23.4) 155 (84.2) 43 (23.4) 155 (84.2) 43 (23.4) 155 (84.2) 43 (23.4) 155 (84.2) 43 (23.4) 155 (84.2) 43 (23.4) 155 (84.2) 43 (23.4) 155 (84.2) 43 (23.4) 155 (84.2) 43 (23.4) 155 (84.2) 43 (23.4) 155 (84.2) 43 (23.4) 155 (84.2)	during resuscitation?	450 (04.5)
In the event of resuscitation, when should family members be allowed to be present? Never 13 (7.1) After all necessary invasive procedures have been performed During the entire resuscitation process 104 (56.5) Which of the following procedures should the family members be allowed to witness? Bloody procedures 38 (47.8) Non-bloody procedures 315 (73.4) Cardiopulmonary resuscitation 440 (76.1) Examination of private parts 74 (40.2) None 22 (12.0) What is the ideal number of family members that should be allowed to witness the resuscitation? O 21 (11.4) 1 64 (34.8) 2-3 85 (46.2) 3 14 (7.6) Should staff provide emotional and psychological support for the family members that are present? Yes No 174 (94.6) In your opinion, which of the following are benefits of allowing family presence? It helps to assure family members that everything possible has been done It aids in the family members' grieving process It promotes mutual understanding between family members and the healthcare staff It enables family members to give final religious rites None 1 (0.5) In your opinion, which of the following are reasons to not allow family presence? It is a traumatic experience 129 (70.1) It may onstitute a breach of privacy 30 (16.3) It may interfere with the resuscitation process None 43 (23.4) It may interfere with the resuscitation process None 50 (32.6) Which of the following family members should be allowed in the resuscitation room; 15 (8.2) Which of the following family members should be allowed in the resuscitation process None 17 (94.6) Which of the following groups of patients 174 (94.6) Siblings of paediatric patients 174 (94.6) Siblings of paediatric patients 174 (94.6) Which of the following groups of patients 185 (84.2) Adult children of geriatric patients 195 (67.9) Which of the following groups of patients 195 (67.9) Patients with acute illnesses 195 (73.4) Trauma patients 195 (67.3)		
Newer		01(10.0)
After all necessary invasive procedures have been performed During the entire resuscitation process Which of the following procedures should the family members be allowed to witness? Bloody procedures Bloody procedures Ron-bloody procedures Ron-Ron-Ron-Ron-Ron-Ron-Ron-Ron-Ron-Ron-	members be allowed to be present?	
performed During the entire resuscitation process Which of the following procedures should the family members be allowed to witness? Bloody procedures Non-bloody procedures None bloody procedures None cardiopulmonary resuscitation Examination of private parts None What is the ideal number of family members that should be allowed to witness the resuscitation? O 21 (11.4) 1 64 (34.8) 2-3 85 (46.2) 3 85 (46.2) 14 (7.6) Should staff provide emotional and psychological support for the family members that are present? Yes No In your opinion, which of the following are benefits of allowing family presence? It helps to assure family members that everything possible has been done It aids in the family members' grieving process It promotes mutual understanding between family members and the healthcare staff It enables family members to give final religious rites None In your opinion, which of the following are reasons to not allow family presence? It is a traumatic experience It may have medicolegal implications In your opinion, which of the following are reasons to not allow family presence? It may interfere with the resuscitation process None Which of the following family members should be allowed in the resuscitation room? Parents of paediatric patients Spouses of patients Adult children of geriatric patients Spouses of patients Adult children of geriatric patients Which of the following groups of patients will benefit from family presence during resuscitation? Patients with acute illnesses Patients with chronic illnesses 135 (73.4) Trauma patients 117 (63.6)	Never	
During the entire resuscitation process Which of the following procedures should the family members be allowed to witness? Bloody procedures 135 (73.4) Cardiopulmonary resuscitation 140 (76.1) Examination of private parts 74 (40.2) None 22 (12.0) What is the ideal number of family members that should be allowed to witness the resuscitation? O 21 (11.4) 1 64 (34.8) 85 (46.2) 3 3 85 (46.2) 3 3 14 (7.6) Should staff provide emotional and psychological support for the family members that are present? Yes 174 (94.6) No 10 (5.4) In your opinion, which of the following are benefits of allowing family presence? It helps to assure family members that everything possible has been done It aids in the family members grieving process It promotes mutual understanding between family members and the healthcare staff It enables family members to give final religious rites None 10 (10.5) In your opinion, which of the following are reasons to not allow family presence? It is a traumatic experience 129 (70.1) It may have medicolegal implications 60 (32.6) It may constitute a breach of privacy 10 (39.7) It may interfere with the resuscitation process 73 (39.7) None Which of the following family members should be allowed in the resuscitation room? Parents of paediatric patients 174 (94.6) Siblings of paediatric patients 175 (84.2) Adult children of geriatric patients 175 (84.2) Which of the following groups of patients 186 (96.3) Which of the following groups of patients 187 (73.4) Trauma patients 187 (73.4) Trauma patients 187 (73.4) Trauma patients 187 (73.4)		67 (36.4)
Which of the following procedures should the family members be allowed to witness? Bloody procedures 135 (73.4) (27.4) (176.1	·	104 (56.5)
Bloody procedures 88 (47.8) Non-bloody procedures 135 (73.4) Cardiopulmonary resuscitation 140 (76.1) Examination of private parts 74 (40.2) None 22 (12.0) What is the ideal number of family members that should be allowed to witness the resuscitation? O 21 (11.4) 1 64 (34.8) 2-3 85 (46.2) > 3 85 (46.2) > 3 85 (46.2) > 3 14 (7.6) Should staff provide emotional and psychological support for the family members that are present? Yes No 10 (5.4) In your opinion, which of the following are benefits of allowing family presence? It helps to assure family members that everything possible has been done It aids in the family members' grieving process It promotes mutual understanding between family members and the healthcare staff It enables family members to give final religious rites None 10 (5.5) In your opinion, which of the following are reasons to not allow family presence? It is a traumatic experience 129 (70.1) It may have medicolegal implications 60 (32.6) It may interfere with the resuscitation process 73 (39.7) None 15 (8.2) Which of the following family members should be allowed in the resuscitation room? Parents of paediatric patients 174 (94.6) Siblings of paediatric patients 155 (84.2) Adult children of geriatric patients 155 (84.2) Adult children of geriatric patients 155 (84.2) Adult children of geriatric patients 155 (84.2) Patients with acute illnesses 89 (48.4) Patients with chronic illnesses 135 (73.4) Trauma patients 117 (63.6)		
Non-bloody procedures Cardiopulmonary resuscitation Examination of private parts None What is the ideal number of family members that should be allowed to witness the resuscitation? 0 21 (11.4) 1 64 (34.8) 2-3 85 (46.2) > 3 85 (46.2) > 3 14 (7.6) Should staff provide emotional and psychological support for the family members that are present? Yes 174 (94.6) No 10 (5.4) In your opinion, which of the following are benefits of allowing family presence? It helps to assure family members that everything possible has been done It aids in the family members' grieving process It promotes mutual understanding between family members and the healthcare staff It enables family members to give final religious rites None 10 (0.5) In your opinion, which of the following are reasons to not allow family presence? It is a traumatic experience 129 (70.1) It may have medicolegal implications 60 (32.6) It may constitute a breach of privacy 30 (16.3) It may interfere with the resuscitation process 73 (39.7) None 15 (8.2) Which of the following family members should be allowed in the resuscitation room? Parents of paediatric patients 174 (94.6) Siblings of paediatric patients 175 (87.9) Which of the following groups of patients 175 (87.9) Which of the following groups of patients 175 (87.9) Which of the following groups of patients 175 (87.4) Patients with acute illnesses 89 (48.4) Patients with chronic illnesses 195 (73.4) Trauma patients 117 (63.6)	family members be allowed to witness?	
Cardiopulmonary resuscitation Examination of private parts None What is the ideal number of family members that should be allowed to witness the resuscitation? 0 21 (11.4) 1 64 (34.8) 2-3 85 (46.2) > 3 85 (46.2) > 3 14 (7.6) Should staff provide emotional and psychological support for the family members that are present? Yes 174 (94.6) No 10 (5.4) In your opinion, which of the following are benefits of allowing family presence? It helps to assure family members that everything possible has been done It aids in the family members' grieving process It promotes mutual understanding between family members and the healthcare staff It enables family members to give final religious rites None 1 (0.5) In your opinion, which of the following are reasons to not allow family presence? It is a traumatic experience 129 (70.1) It may have medicolegal implications 60 (32.6) It may constitute a breach of privacy 30 (16.3) It may interfere with the resuscitation process None 15 (8.2) Which of the following family members should be allowed in the resuscitation room? Parents of paediatric patients 174 (94.6) Siblings of paediatric patients 43 (23.4) Spouses of patients 174 (94.6) Siblings of paediatric patients 174 (94.6) Siblings of paediatric patients 175 (84.2) Adult children of geriatric patients 174 (94.6) Siblings of paediatric patients 175 (84.2) Adult children of geriatric patients 174 (94.6) Siblings of paediatric patients 175 (84.2) Adult children of geriatric patients 175 (87.9) Which of the following groups of patients 175 (87.9) Which of the following groups of patients 175 (87.4) Trauma patients 176 (83.6)		
Examination of private parts None What is the ideal number of family members that should be allowed to witness the resuscitation? 0 21 (11.4) 1 64 (34.8) 2-3 85 (46.2) > 3 85 (46.2) > 3 14 (7.6) Should staff provide emotional and psychological support for the family members that are present? Yes 174 (94.6) No 10 (5.4) In your opinion, which of the following are benefits of allowing family presence? It helps to assure family members that everything possible has been done It aids in the family members' grieving process It promotes mutual understanding between family members and the healthcare staff It enables family members to give final religious rites None 1 (0.5) In your opinion, which of the following are reasons to not allow family presence? It is a traumatic experience 129 (70.1) It may have medicolegal implications 60 (32.6) It may constitute a breach of privacy 30 (16.3) It may interfere with the resuscitation process 73 (39.7) None 15 (8.2) Which of the following family members should be allowed in the resuscitation room? Parents of paediatric patients 174 (94.6) Siblings of paediatric patients 175 (84.2) Adult children of geriatric patients 175 (84.2) Adult children of geriatric patients 175 (87.9) Which of the following groups of patients 175 (87.9) Which of the following groups of patients 175 (87.4) Trauma patients 176 (63.6)		
What is the ideal number of family members that should be allowed to witness the resuscitation? 0 21 (11.4) 1 64 (34.8) 2-3 85 (46.2) 3 85 (46.2) 3 14 (7.6) Should staff provide emotional and psychological support for the family members that are present? Yes 174 (94.6) No 10 (5.4) In your opinion, which of the following are benefits of allowing family presence? It helps to assure family members that everything possible has been done It aids in the family members' grieving process It promotes mutual understanding between family members and the healthcare staff It enables family members to give final religious rites None 1 (0.5) In your opinion, which of the following are reasons to not allow family presence? It is a traumatic experience 129 (70.1) It may have medicolegal implications 60 (32.6) It may constitute a breach of privacy 30 (16.3) It may interfere with the resuscitation process 73 (39.7) None 15 (8.2) Which of the following family members should be allowed in the resuscitation room? Parents of paediatric patients 174 (94.6) Siblings of paediatric patients 175 (84.2) Adult children of geriatric patients 155 (84.2) Adult children of geriatric patients 155 (84.2) Which of the following groups of patients will benefit from family presence during resuscitation? Patients with acute illnesses 89 (48.4) Trauma patients 117 (63.6)		
should be allowed to witness the resuscitation? 0 21 (11.4) 1 64 (34.8) 2-3 85 (46.2) > 3 14 (7.6) Should staff provide emotional and psychological support for the family members that are present? Yes 174 (94.6) No 10 (5.4) In your opinion, which of the following are benefits of allowing family presence? It helps to assure family members that everything possible has been done It aids in the family members' grieving process It promotes mutual understanding between family members and the healthcare staff It enables family members to give final religious rites None 1 (0.5) In your opinion, which of the following are reasons to not allow family presence? It is a traumatic experience 129 (70.1) It may have medicolegal implications 60 (32.6) It may constitute a breach of privacy 30 (16.3) It may interfere with the resuscitation process 73 (39.7) None 15 (8.2) Which of the following family members should be allowed in the resuscitation room? Parents of paediatric patients 174 (94.6) Siblings of paediatric patients 43 (23.4) Spouses of patients 43 (23.4) Spouses of patients 45 (67.9) Which of the following groups of patients will benefit from family presence during resuscitation? Patients with acute illnesses 89 (48.4) Patients with chronic illnesses 135 (73.4) Trauma patients 117 (63.6)		
0 21 (11.4) 1 64 (34.8) 2-3 85 (46.2) > 3 14 (7.6) Should staff provide emotional and psychological support for the family members that are present? Yes 174 (94.6) No 10 (5.4) In your opinion, which of the following are benefits of allowing family presence? It helps to assure family members that everything possible has been done It aids in the family members' grieving process It promotes mutual understanding between family members and the healthcare staff It enables family members to give final religious rites None 1 (0.5) In your opinion, which of the following are reasons to not allow family presence? It is a traumatic experience 129 (70.1) It may have medicolegal implications 60 (32.6) It may constitute a breach of privacy 30 (16.3) It may interfere with the resuscitation process 73 (39.7) None 15 (8.2) Which of the following family members should be allowed in the resuscitation room? Parents of paediatric patients 174 (94.6) Siblings of paediatric patients 43 (23.4) Spouses of patients 155 (84.2) Adult children of geriatric patients 155 (84.2) Which of the following groups of patients will benefit from family presence during resuscitation? Patients with acute illnesses 89 (48.4) Patients with chronic illnesses 135 (73.4) Trauma patients 117 (63.6)	What is the ideal number of family members that	
1 64 (34.8) 2-3 85 (46.2) > 3 14 (7.6) Should staff provide emotional and psychological support for the family members that are present? Yes 174 (94.6) No 10 (5.4) In your opinion, which of the following are benefits of allowing family presence? It helps to assure family members that everything possible has been done It aids in the family members' grieving process It promotes mutual understanding between family members and the healthcare staff It enables family members to give final religious rites None 1 (0.5) In your opinion, which of the following are reasons to not allow family presence? It is a traumatic experience 129 (70.1) It may have medicolegal implications 60 (32.6) It may constitute a breach of privacy 30 (16.3) It may interfere with the resuscitation process 73 (39.7) None 15 (8.2) Which of the following family members should be allowed in the resuscitation room? Parents of paediatric patients 174 (94.6) Siblings of paediatric patients 43 (23.4) Spouses of patients 155 (84.2) Adult children of geriatric patients 155 (84.2) Which of the following groups of patients will benefit from family presence during resuscitation? Patients with acute illnesses 89 (48.4) Patients with chronic illnesses 135 (73.4) Trauma patients 117 (63.6)	should be allowed to witness the resuscitation?	
2-3 85 (46.2) > 3 14 (7.6) Should staff provide emotional and psychological support for the family members that are present? Yes 174 (94.6) No 10 (5.4) In your opinion, which of the following are benefits of allowing family presence? It helps to assure family members that everything possible has been done It aids in the family members' grieving process It promotes mutual understanding between family members and the healthcare staff It enables family members to give final religious rites None 1 (0.5) In your opinion, which of the following are reasons to not allow family presence? It is a traumatic experience 129 (70.1) It may have medicolegal implications 60 (32.6) It may constitute a breach of privacy 30 (16.3) It may interfere with the resuscitation process 73 (39.7) None 15 (8.2) Which of the following family members should be allowed in the resuscitation room? Parents of paediatric patients 174 (94.6) Siblings of paediatric patients 43 (23.4) Spouses of patients 175 (84.2) Adult children of geriatric patients 43 (23.4) Which of the following groups of patients will benefit from family presence during resuscitation? Patients with acute illnesses 89 (48.4) Trauma patients 135 (73.4) Trauma patients 117 (63.6)		
Should staff provide emotional and psychological support for the family members that are present? Yes 174 (94.6) No 10 (5.4) In your opinion, which of the following are benefits of allowing family presence? It helps to assure family members that everything possible has been done It aids in the family members' grieving process It promotes mutual understanding between family members and the healthcare staff It enables family members to give final religious rites None 1 (0.5) In your opinion, which of the following are reasons to not allow family presence? It is a traumatic experience 129 (70.1) It may have medicolegal implications 16 (32.6) It may constitute a breach of privacy 15 (8.2) Which of the following family members should be allowed in the resuscitation room? Parents of paediatric patients 174 (94.6) Siblings of paediatric patients 43 (23.4) Spouses of patients 155 (84.2) Adult children of geriatric patients 155 (84.2) Which of the following groups of patients will benefit from family presence during resuscitation? Patients with acute illnesses 89 (48.4) Trauma patients 135 (73.4) Trauma patients 117 (63.6)	_	
ryes 174 (94.6) No 10 (5.4) In your opinion, which of the following are benefits of allowing family presence? It helps to assure family members that everything possible has been done It aids in the family members' grieving process It promotes mutual understanding between family members and the healthcare staff It enables family members to give final religious rites None 1 (0.5) In your opinion, which of the following are reasons to not allow family presence? It is a traumatic experience It may have medicolegal implications It may constitute a breach of privacy 30 (16.3) It may interfere with the resuscitation process None 15 (8.2) Which of the following family members should be allowed in the resuscitation room? Parents of paediatric patients 43 (23.4) Spouses of patients 43 (23.4) Spouses of patients 43 (23.4) Which of the following groups of patients will benefit from family presence during resuscitation? Patients with acute illnesses 89 (48.4) Trauma patients 135 (73.4) Trauma patients 137 (63.6)		
No 174 (94.6) No 10 (5.4) In your opinion, which of the following are benefits of allowing family presence? It helps to assure family members that everything possible has been done It aids in the family members' grieving process It promotes mutual understanding between family members and the healthcare staff It enables family members to give final religious rites None 1 (0.5) In your opinion, which of the following are reasons to not allow family presence? It is a traumatic experience It may have medicolegal implications 60 (32.6) It may constitute a breach of privacy 30 (16.3) It may interfere with the resuscitation process 73 (39.7) None 75 (8.2) Which of the following family members should be allowed in the resuscitation room? Parents of paediatric patients 174 (94.6) Siblings of paediatric patients 43 (23.4) Spouses of patients 155 (84.2) Adult children of geriatric patients 155 (84.2) Which of the following groups of patients will benefit from family presence during resuscitation? Patients with acute illnesses 89 (48.4) Patients with chronic illnesses 135 (73.4) Trauma patients 117 (63.6)	Should staff provide emotional and psychological	
In your opinion, which of the following are benefits of allowing family presence? It helps to assure family members that everything possible has been done It aids in the family members' grieving process It promotes mutual understanding between family members and the healthcare staff It enables family members to give final religious rites None In your opinion, which of the following are reasons to not allow family presence? It is a traumatic experience It may have medicolegal implications It may constitute a breach of privacy It may interfere with the resuscitation process None Which of the following family members should be allowed in the resuscitation room? Parents of paediatric patients Siblings of paediatric patients Siblings of paediatric patients Adult children of geriatric patients Which of the following groups of patients will benefit from family presence during resuscitation? Patients with acute illnesses Patients with chronic illnesses Fatients with chronic illne	support for the family members that are present?	
In your opinion, which of the following are benefits of allowing family presence? It helps to assure family members that everything possible has been done It aids in the family members' grieving process It promotes mutual understanding between family members and the healthcare staff It enables family members to give final religious rites None In your opinion, which of the following are reasons to not allow family presence? It is a traumatic experience It may have medicolegal implications It may constitute a breach of privacy It may interfere with the resuscitation process None Which of the following family members should be allowed in the resuscitation room? Parents of paediatric patients Siblings of paediatric patients Siblings of paediatric patients Adult children of geriatric patients Which of the following groups of patients will benefit from family presence during resuscitation? Patients with acute illnesses Patients with chronic illnesses 135 (73.4) Trauma patients 117 (63.6)		
It helps to assure family members that everything possible has been done It aids in the family members' grieving process It promotes mutual understanding between family members and the healthcare staff It enables family members to give final religious rites None In your opinion, which of the following are reasons to not allow family presence? It is a traumatic experience It may have medicolegal implications It may interfere with the resuscitation process None If your of the following family members should be allowed in the resuscitation room? Parents of paediatric patients Siblings of paediatric patients Adult children of geriatric patients Which of the following groups of patients will benefit from family presence during resuscitation? Patients with acute illnesses Patients with chronic illnesses Trauma patients 157 (85.3) 157 (85.3) 157 (85.3) 157 (85.3) 20 (10.9) 20 (10 (3.4)
It helps to assure family members that everything possible has been done It aids in the family members' grieving process It promotes mutual understanding between family members and the healthcare staff It enables family members to give final religious rites None In your opinion, which of the following are reasons to not allow family presence? It is a traumatic experience It may have medicolegal implications It may constitute a breach of privacy It may interfere with the resuscitation process None Which of the following family members should be allowed in the resuscitation room? Parents of paediatric patients Siblings of paediatric patients Adult children of geriatric patients Which of the following groups of patients will benefit from family presence during resuscitation? Patients with acute illnesses Patients with chronic illnesses Trauma patients 157 (85.3) 25 (13.6) 20 (10.9) 20 (10.9) 20 (10.9) 21 (10.5) 22 (10.9) 23 (10.9) 24 (10.5) 25 (13.6) 20 (10.9) 26 (10.9) 27 (10.9) 28 (10.9) 29 (53.8) 29 (53.8) 20 (10.9		
It aids in the family members' grieving process It promotes mutual understanding between family members and the healthcare staff It enables family members to give final religious rites None It (0.5) In your opinion, which of the following are reasons to not allow family presence? It is a traumatic experience It may have medicolegal implications It may constitute a breach of privacy It may interfere with the resuscitation process None Which of the following family members should be allowed in the resuscitation room? Parents of paediatric patients Siblings of paediatric patients Adult children of geriatric patients Adult children of geriatric patients Which of the following groups of patients will benefit from family presence during resuscitation? Patients with acute illnesses Patients with chronic illnesses Trauma patients 125 (13.6) 20 (10.9) 99 (53.8) 1 (0.5) 1 (0.5) 1 (10.5)		157 (85.3)
It promotes mutual understanding between family members and the healthcare staff It enables family members to give final religious rites None 1 (0.5) In your opinion, which of the following are reasons to not allow family presence? It is a traumatic experience 129 (70.1) It may have medicolegal implications 60 (32.6) It may constitute a breach of privacy 30 (16.3) It may interfere with the resuscitation process 73 (39.7) None 15 (8.2) Which of the following family members should be allowed in the resuscitation room? Parents of paediatric patients 174 (94.6) Siblings of paediatric patients 43 (23.4) Spouses of patients 155 (84.2) Adult children of geriatric patients 155 (67.9) Which of the following groups of patients will benefit from family presence during resuscitation? Patients with acute illnesses 89 (48.4) Trauma patients 117 (63.6)	·	05 (40.0)
members and the healthcare staff It enables family members to give final religious rites None 1 (0.5) In your opinion, which of the following are reasons to not allow family presence? It is a traumatic experience 129 (70.1) It may have medicolegal implications 60 (32.6) It may constitute a breach of privacy 30 (16.3) It may interfere with the resuscitation process 73 (39.7) None 15 (8.2) Which of the following family members should be allowed in the resuscitation room? Parents of paediatric patients 174 (94.6) Siblings of paediatric patients 43 (23.4) Spouses of patients 155 (84.2) Adult children of geriatric patients 125 (67.9) Which of the following groups of patients will benefit from family presence during resuscitation? Patients with acute illnesses 89 (48.4) Trauma patients 117 (63.6)		
rites None In your opinion, which of the following are reasons to not allow family presence? It is a traumatic experience It may have medicolegal implications It may constitute a breach of privacy It may interfere with the resuscitation process None Which of the following family members should be allowed in the resuscitation room? Parents of paediatric patients Siblings of paediatric patients Siblings of paediatric patients Adult children of geriatric patients Adult children of geriatric patients Which of the following groups of patients will benefit from family presence during resuscitation? Patients with acute illnesses Patients with chronic illnesses 135 (73.4) Trauma patients 10.05) 129 (70.1) 1		20 (10.0)
None 1 (0.5) In your opinion, which of the following are reasons to not allow family presence? It is a traumatic experience 129 (70.1) It may have medicolegal implications 60 (32.6) It may constitute a breach of privacy 30 (16.3) It may interfere with the resuscitation process 73 (39.7) None 15 (8.2) Which of the following family members should be allowed in the resuscitation room? Parents of paediatric patients 174 (94.6) Siblings of paediatric patients 43 (23.4) Spouses of patients 155 (84.2) Adult children of geriatric patients 125 (67.9) Which of the following groups of patients will benefit from family presence during resuscitation? Patients with acute illnesses 89 (48.4) Trauma patients 117 (63.6)	It enables family members to give final religious	99 (53.8)
In your opinion, which of the following are reasons to not allow family presence? It is a traumatic experience 129 (70.1) It may have medicolegal implications 60 (32.6) It may constitute a breach of privacy 30 (16.3) It may interfere with the resuscitation process 73 (39.7) None 15 (8.2) Which of the following family members should be allowed in the resuscitation room? Parents of paediatric patients 174 (94.6) Siblings of paediatric patients 43 (23.4) Spouses of patients 155 (84.2) Adult children of geriatric patients 125 (67.9) Which of the following groups of patients will benefit from family presence during resuscitation? Patients with acute illnesses 89 (48.4) Trauma patients 117 (63.6)		1 (0.5)
to not allow family presence? It is a traumatic experience 129 (70.1) It may have medicolegal implications 60 (32.6) It may constitute a breach of privacy 30 (16.3) It may interfere with the resuscitation process 73 (39.7) None 15 (8.2) Which of the following family members should be allowed in the resuscitation room? Parents of paediatric patients 174 (94.6) Siblings of paediatric patients 43 (23.4) Spouses of patients 155 (84.2) Adult children of geriatric patients 125 (67.9) Which of the following groups of patients will benefit from family presence during resuscitation? Patients with acute illnesses 89 (48.4) Trauma patients 117 (63.6)		1 (0.5)
It is a traumatic experience 129 (70.1) It may have medicolegal implications 60 (32.6) It may constitute a breach of privacy 30 (16.3) It may interfere with the resuscitation process 73 (39.7) None 15 (8.2) Which of the following family members should be allowed in the resuscitation room? Parents of paediatric patients 174 (94.6) Siblings of paediatric patients 43 (23.4) Spouses of patients 155 (84.2) Adult children of geriatric patients 125 (67.9) Which of the following groups of patients will benefit from family presence during resuscitation? Patients with acute illnesses 89 (48.4) Trauma patients 117 (63.6)		
It may constitute a breach of privacy It may interfere with the resuscitation process None 15 (8.2) Which of the following family members should be allowed in the resuscitation room? Parents of paediatric patients Siblings of paediatric patients 43 (23.4) Spouses of patients Adult children of geriatric patients 125 (67.9) Which of the following groups of patients will benefit from family presence during resuscitation? Patients with acute illnesses 89 (48.4) Trauma patients 117 (63.6)		129 (70.1)
It may interfere with the resuscitation process None 73 (39.7) 15 (8.2) Which of the following family members should be allowed in the resuscitation room? Parents of paediatric patients Siblings of paediatric patients 43 (23.4) Spouses of patients Adult children of geriatric patients 125 (67.9) Which of the following groups of patients will benefit from family presence during resuscitation? Patients with acute illnesses Patients with chronic illnesses 135 (73.4) Trauma patients 15 (8.2)	It may have medicolegal implications	
None 15 (8.2) Which of the following family members should be allowed in the resuscitation room? Parents of paediatric patients 174 (94.6) Siblings of paediatric patients 43 (23.4) Spouses of patients 155 (84.2) Adult children of geriatric patients 125 (67.9) Which of the following groups of patients will benefit from family presence during resuscitation? Patients with acute illnesses 89 (48.4) Patients with chronic illnesses 135 (73.4) Trauma patients 117 (63.6)		` ,
Which of the following family members should be allowed in the resuscitation room? Parents of paediatric patients 174 (94.6) Siblings of paediatric patients 43 (23.4) Spouses of patients 155 (84.2) Adult children of geriatric patients 125 (67.9) Which of the following groups of patients will benefit from family presence during resuscitation? Patients with acute illnesses 89 (48.4) Patients with chronic illnesses 135 (73.4) Trauma patients 117 (63.6)		` '
Parents of paediatric patients 174 (94.6) Siblings of paediatric patients 43 (23.4) Spouses of patients 155 (84.2) Adult children of geriatric patients 125 (67.9) Which of the following groups of patients will benefit from family presence during resuscitation? Patients with acute illnesses 89 (48.4) Patients with chronic illnesses 135 (73.4) Trauma patients 174 (94.6)	Which of the following family members should be	()
Siblings of paediatric patients 43 (23.4) Spouses of patients 155 (84.2) Adult children of geriatric patients 125 (67.9) Which of the following groups of patients will benefit from family presence during resuscitation? Patients with acute illnesses 89 (48.4) Patients with chronic illnesses 135 (73.4) Trauma patients 117 (63.6)	allowed in the resuscitation room?	
Spouses of patients 155 (84.2) Adult children of geriatric patients 125 (67.9) Which of the following groups of patients will benefit from family presence during resuscitation? Patients with acute illnesses 89 (48.4) Patients with chronic illnesses 135 (73.4) Trauma patients 117 (63.6)		
Adult children of geriatric patients 125 (67.9) Which of the following groups of patients will benefit from family presence during resuscitation? Patients with acute illnesses 89 (48.4) Patients with chronic illnesses 135 (73.4) Trauma patients 117 (63.6)		
Which of the following groups of patients will benefit from family presence during resuscitation? Patients with acute illnesses 89 (48.4) Patients with chronic illnesses 135 (73.4) Trauma patients 117 (63.6)		
will benefit from family presence during resuscitation? Patients with acute illnesses 89 (48.4) Patients with chronic illnesses 135 (73.4) Trauma patients 117 (63.6)	Which of the following groups of patients	()
Patients with acute illnesses 89 (48.4) Patients with chronic illnesses 135 (73.4) Trauma patients 117 (63.6)	will benefit from family presence during	
Patients with chronic illnesses 135 (73.4) Trauma patients 117 (63.6)	resuscitation?	00 (45 1)
Trauma patients 117 (63.6)		
107 (58.2)	Terminally ill patients	107 (58.2)

Table II. Univariate analysis of the association between various factors and the attitudes of the general Malaysian public toward family presence during resuscitation.

Factor	Family presence should be allowed*		p-value†
	Yes	No	
Gender			
Male (n = 68)	52 (76.5)	16 (23.5)	0.93
Female (n = 116)	88 (75.9)	28 (24.1)	
Education level			
Tertiary level (n = 127)	96 (75.6)	31 (24.4)	0.81
Secondary level and	44 (77.2)	13 (22.8)	
below (n = 57)			
Participants who have			
terminal illnesses	19 (95.0)	1 (5.0)	0.04
Yes (n = 20)	121 (73.8)	43 (26.2)	
No (n = 164)			
Participants with a family			
member who has terminal			
illnesses			
Yes (n = 35)	28 (80.0)	` '	0.55
No (n = 149)	112 (75.2)	37 (24.8)	
Participants who have			
previous experience of			
witnessing a resuscitation			
or invasive procedures	20 (00 0)	7 (20 0)	٥.
Yes (n = 35)	• • • • • • • • • • • • • • • • • • • •	7 (20.0)	0.55
No (n = 149)	112 (75.2)	37 (24.8)	

^{*}Data is presented as no. (%). †All categorical univariate analysis were computed using chi-square test except for the category 'Participants with a family member who has terminal illness', for which Fisher's exact test was applied.

of the healthcare staff surveyed believed that family members should be allowed to witness resuscitation. This discrepancy is also conspicuous in the subcategory of those who agreed that family members should be allowed to be present throughout the entire resuscitation process. In the present study, 104 (56.5%) participants from the general Malaysian public agreed that FP should be allowed in this scenario, whereas in the previous study involving Malaysian healthcare staff, only 3% agreed to such a concession. A similar discrepancy was observed in another Asian study conducted in Singapore, in which Ong et al found that while 73.1% of the public preferred FP during resuscitation, only 10.6% of the surveyed healthcare staff were agreeable to such a concession.

The reasons for such discrepancies remain elusive, although some postulations could be made based on an interesting qualitative study, conducted by sociologist Timmermans, on the perspectives of healthcare staff toward FP during resuscitation. Using in-depth interviews, Timmermans found that the perspectives of healthcare staff regarding resuscitation could be grouped into one of the following three categories – survival, bifurcated and holistic. Healthcare staff who subscribe to the survival perspective would generally view saving a human life to be the major objective of resuscitation. Those with the bifurcated perspective saw two separate goals for resuscitation – first, to save lives with all the technological means possible, and second, to take care of the needs of the patient's family. Healthcare staff who subscribe to the holistic perspective are equally concerned

with several goals – survival of the patient, care of the patient's family and the need to keep family members informed. Although family members should be regarded as active participants in the resuscitation process, Timmermans believes that healthcare staff will not view the concept of FP during resuscitation favourably unless a paradigm shift takes place (from the survival perspective to the bifurcated or holistic perspective). Since the current perspectives of healthcare staff are diverse, it is suggested that FP during resuscitation be regarded as an option rather than a policy for the time being. (9)

In contrast to healthcare staff, family members are often concerned not only about the survival of the patient, especially if they are aware that the patient is terminally sick or has a low chance of survival, but also the opportunity to spend precious moments with their loved ones for the last time, bid them farewell and perform the final religious rites. The last concern is particularly important to Malaysian Muslims, as evidenced by the large number of Malaysian Muslims in the present study (53.8%) who opined that this is an important reason for allowing FP during resuscitation. Therefore, it is probable that differences in expectation concerning the resuscitation process are reflected in the discrepancy of responses between family members and healthcare staff. However, one area that the majority of Malaysian members of the public and healthcare staff concur is that FP during resuscitation would reassure family members that everything possible has been done for their loved ones (85.3% in the present study vs. 71.1% in Sheng et al's study(6)).

In the present study, we also found that participants with terminal illnesses are more likely to agree to having FP during resuscitation than those without terminal illnesses (p = 0.04). This could be due to the possibility that participants with terminal illnesses are more acutely aware of their desire to have their loved ones around in their final moments of life. Thus, FP during resuscitation would likely be more acceptable and useful for elderly patients and patients with terminal illnesses, as their family members may be more likely to be emotionally prepared to bid farewell. On the other hand, FP may not be a suitable option in situations involving paediatric patients, particularly in cases of sudden illnesses or traumatic events. Notwithstanding, the onus is on healthcare staff to change their perspective and allow family members the option of being present during resuscitation.

The present study is not without limitations. First, since this study involved a self-administered questionnaire, it is likely that persons who do not favour FP during resuscitation would be less willing to participate. Second, as this was a cross-sectional study, the opinions of our participants could change over time and ideas that may have seemed unfavourable at one particular point of time may become favourable at another time. For example, a participant who develops a chronic terminal illness at a later time in life may become more favourable toward the idea of FP during resuscitation. Finally, the sample size of the present study is small and may not truly represent the Malaysian population as a whole.

In conclusion, we found that the proportion of members of the Malaysian public who agreed that FP during resuscitation should be allowed is higher than that of Malaysian healthcare staff. This could be due to differences in concerns regarding the resuscitation process between members of the public and healthcare staff. Further studies should be conducted to investigate this postulate.

REFERENCES

- Baumhover N, Hughes L. Spirituality and support for family presence during invasive procedures and resuscitations in adults. Am J Crit Care 2009; 18:357-66.
- Mazer MA, Cox LA, Capon JA. The public's attitude and perception concerning witnessed cardiopulmonary resuscitation. Crit Care Med 2006; 34:2925-8.
- MacLean SL, Guzzetta CE, White C, et al. Family presence during cardiopulmonary resuscitation and invasive procedures: practices of critical care and emergency nurses. Am J Crit Care 2003; 12:246-57.

- Ersoy G, Yanturali S, Suner S, et al. Turkish patient relatives' attitudes towards family-witnessed resuscitation and affecting sociodemographic factors. Eur J Emerg Med 2009; 16:188-93.
- Meyers TA, Eichhorn DJ, Guzzetta CE, et al. Family presence during invasive procedures and resuscitation. Am J Nurs 2000; 100:32-42.
- Sheng CK, Lim CK, Rashidi A. A multi-center study on the attitudes of Malaysian emergency health care staff towards allowing family presence during resuscitation of adult patients. Int J Emerg Med 2010; 3:287-91.
- Emergency Nurses Association (ENA). Position statement Family presence during invasive procedures and resuscitation in the emergency department [online]. Available at: http://www.ena.org/SiteCollectionDocuments/ Position%20Statements/FamilyPresence.pdf. Accessed June 2, 2013.
- Ong ME, Chung WL, Mei JS. Comparing attitudes of the public and medical staff towards witnessed resuscitation in an Asian population. Resuscitation 2007; 73:103-8.
- Timmermans S. High touch in high tech: the presence of relatives and friends during resuscitative efforts. Sch Inq Nurs Pract 1997; 11:153-68.