# **SHORT COMMUNICATION**

# Should the family witness cardiopulmonary resuscitation? Perceptions of health professionals in Poland

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### **INTRODUCTION**

The idea of family presence during cardiopulmonary resuscitation (CPR) first emerged in medical practice in 1987 in the Foote Hospital in Jackson, Michigan, United States. Despite its numerous benefits, the concept is still highly controversial due to a range of cultural and social differences, and thus the option is not commonly offered to patients' families in many countries [1]. Some professionals believe that the presence of family during resuscitation facilitates communication and enables them to explain the nature of the procedure. Others claim that it may be a traumatic experience for family members, and may put an additional strain on the resuscitation team, potentially interfering with their work [2, 3].

The purpose of the study was to investigate the perception of family presence during resuscitation among Polish professionals. In particular, we examined views regarding the risks, benefits, and self-confidence associated with family presence during resuscitation.

#### **METHODS**

The study group included nurses and paramedics employed in two Independent Public Teaching Hospitals in Lublin: the Eastern Burn Centre in Leczna and the Regional Emergency Medical Service in Lublin, as well as the Helicopter Emergency Medical Service. The survey was approved by the Ethics Committee.

The authors' questionnaire, the Risk-Benefit Scale (R-BS), and the Family Presence Self-Confidence Scale (S-CS) [4] were used in the survey.

Statistical analysis was performed using STATISTICA 10 (StatSoft, Krakow, Poland).

#### **RESULTS**

In total, 529 correctly completed questionnaires (62% of the returned questionnaires) from 263 nurses and 266 paramedics were included in the study. The largest groups of respondents comprised Emergency Medical Services employees aged between 30 and 39 years (46.9%), and those with up to five years of professional experience (30.6%). Women accounted for 50.1% of the respondents. The study group did not have extensive experience in resuscitation; only 9.4% of the respondents performed it several times a week, and 38.6% performed it several times a month. Moreover, 72% of them had never invited patients' family to be present during resuscitation; 35.5% were often or very often accompanied by patient family members; 61.8% had completed an advanced life support (ALS) course; and 18.3% had participated in the resuscitation of a family member of their own.

Correlations between the R-BS and S-CS scales, sociodemographic factors, and experience with family presence during resuscitation are presented in Table 1.

# DISCUSSION

Despite the fact that family presence during resuscitation is supported and recommended by numerous international organisations, including the European Resuscitation Council (ERC), the American Heart Association, and the Emergency Nurses Association, the concept remains controversial and is not universally accepted [5–7]. The presence of family members during CPR may be considered a standard only if all doubts are resolved, and if evidence and ethical considerations demonstrating the positive influence of family presence on the patient, the family, and the health care professionals are provided [8].

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Table 1. Characteristics of participants and correlations between the Risk-Benefit Scale (R-BS) and the Family Presence Self-Confidence Scale (S-CS) questionnaire results

Characteristic	R-BS	р	s-cs	р
Sex:		< 0.001		< 0.001
Male	2.99 (0.71)		3.59 (0.65)	
Female	2.48 (0.66)		3.14 (0.74)	
Age [years]:		< 0.001		0.001
20–29	2.84 (0.78)		3.45 (0.72)	
30–39	2.89 (0.75)		3.44 (0.71)	
40–49	2.50 (0.59)		3.19 (0.69)	
> 49	2.43 (0.59)		3.36 (0.73)	
Years of experience:		< 0.001		< 0.001
≤ 5	2.78 (0.72)		3.41 (0.67)	
6–10	2.95 (0.81)		3.46 (0.78)	
11–20	2.77 (0.71)		3.44 (0.74)	
> 20	2.41 (0.56)		3.11 (0.71)	
Role:		< 0.001		< 0.001
Nurse	2.49 (0.67)		3.12 (0.76)	
Paramedic	2.98 (0.71)		3.60 (0.62)	
Workplace:		< 0.001		< 0.001
Emergency Medical Services	3.03 (0.69)		3.63 (0.63)	
Emergency Department	2.63 (0.71)		3.33 (0.70)	
Intensive Care Unit	2.53 (0.74)		3.02 (0.81)	
Other	2.38 (0.61)		3.07 (0.72)	
Number of times family presence was offered:		< 0.001		< 0.001
Never	2.52 (0.59)		3.20 (0.70)	
< 5	2.89 (0.69)		3.65 (0.60)	
> 5	3.67 (0.66)		3.90 (0.66)	
Experience in performing CPR in the presence of family mem	< 0.001		< 0.001	
Often/very often	3.14 (0.72)		3.72 (0.58)	
Sometimes/rarely	2.69 (0.60)		3.31 (0.75)	
Never	2.33 (0.63)		3.01 (0.69)	
Trained in advanced life support:				
Yes	2.87 (38.2)	< 0.001	3.50 (0.71)	< 0.001
No	2.53 (0.64)		3.15 (0.72)	
Frequency of CPR performance:		0.14		0.12
Several times a week	2.67 (0.67)		3.44 (0.39)	
Several times a month	2.75 (0.81)		3.36 (0.48)	
Several times a year	2.77 (0.73)		3.38 (0.51)	
Never	2.70 (0.58)		3.24 (0.44)	
Participation in a CPR of a family member of their own:		0.03		0.11
Yes	2.87 (0.70)		3.46 (0.75)	
No	2.71 (0.74)		3.34 (0.72)	

Data are shown as mean (standard deviation).  $\mathsf{CPR}$  — cardiopulmonary resuscitation

The current research is likely to be a pioneering one in the Polish setting, but in the foreign literature this issue has been the subject of numerous studies and publications, allowing for a comparison and discussion of the results [4, 8, 9]. Nurses who belonged to a professional organisation and had a clinical specialty tended to view family presence during CPR as more beneficial and less risky. The analysis indicates that the more times nurses invited family members to be present, the more often they perceived greater benefit and less risk associated with the situation [4].

Another study demonstrated that respondents belonging to professional organisations, with a clinical specialty, would like to be present during resuscitation of their own family member, and they perceived family presence as a situation involving greater benefit and less risk. Moreover, nurses with more years of professional experience saw greater benefit than risk [9].

Professionals who invited families five or more times viewed the situation as involving greater benefit and less risk, compared with professionals who had invited family members to be present fewer than five times or who had never done it [10].

The present study demonstrated a significant difference in the perception of benefits and risks associated with family presence during resuscitation, based on socio-demographic factors. Most respondents are not supportive of the notion of family presence during resuscitation [1, 11, 12]. The present study corroborates these findings.

In the research on the perception of family presence during resuscitation conducted among health care professionals in the United States, nurses expressed a more positive attitude than physicians [13]. In addition, in a London-based study, more experienced physicians and nurses expressed more support towards family presence during CPR in comparison with their less experienced colleagues [14].

Our study demonstrated that respondents who displayed greater self-confidence were more likely to perceive family presence as involving greater benefit and less risk. Those who viewed family presence during resuscitation as the right of the patient and the family members and as a way to help the family go through the grieving process perceived greater benefit and less risk associated with the situation and had more self-confidence in the situation. These findings are corroborated by other studies in the field [4, 9, 10].

In the studied group of health care professionals, a prevailing attitude towards family presence at CPR was negative, with greater risk and less benefit perceived. Male respondents, working in emergency teams, aged up to 39 years, with 6 to 10 years of professional experience, and having completed an ALS course, often invited families to be present at resuscitation. There is a need to improve the implementation of ERC recommendations among health care professionals.

#### Conflict of interest: none declared

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