Araştırma Makalesi – Original Article

A Study on the Ethical Aspects of Witnessed Resuscitation from the Perspective of Prehospital Emergency Caregivers*

Hastane Öncesi Acil Tıp Çalışanları Perspektifinden Tanıklı Resüsitasyonun Etik Boyutu Üzerine Bir Araştırma

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ABSTRACT

Aim: Patients' relatives are routinely removed from the emergency department resuscitation room. One can attribute this practice primarily to reasons such as safeguarding patient welfare, protecting medical personnel and patient's relatives from potential risks. In prehospital emergency medicine, it is often not possible to prevent witnessed resuscitation efforts. Prehospital emergency caregivers responding to cardiopulmonary arrest must focus only on the patient. It is aimed to investigate the ethical perspectives of prehospital emergency caregivers on witnessed resuscitation and to make policy recommendations according to the results of the research.

Methods: The study was designed as a prospective, descriptive survey. Between February 18, 2022 and March 18, 2022, the survey prepared for EMTs, paramedics, health officers, nurses, and physicians working in the ambulance service of Kırşehir Provincial Health Directorate was applied face-to-face.

Results: The majority of the participants were women, associate degree graduates, EMT, and paramedics, and their career duration was between 6-10 years. When comparing paramedic and EMT responses to the questions, a statistically significant difference was only found in the response to question "*Does witnessing the resuscitation you perform in the prehospital area cause a situation that may harm the patient?"*. Additionally, the ethical aspects of witnessed resuscitation in the prehospital setting were examined under the headings such as the witness of the family and nonfamily individuals, professionalism, patient privacy and confidentiality, the grieving process, medical staff safety, and nonmaleficence.

Conclusions: Witnessed resuscitation in the prehospital setting has many controversial ethical aspects and needs regulations and training in this regard.

Keywords: Emergency Medicine Ethics, Prehospital Emergency Medicine, Clinical Ethics, Witnessed Resuscitation, Medical Ethics

ÖZ

Amaç: Hasta yakınları rutin olarak acil servis resüsitasyon odasından çıkarılmaktadır. Bu uygulamayı ağırlıklı olarak hastanın yararını güvence altına almak, sağlık personellerini ve hasta yakınlarını potansiyel risklerden korumak gibi nedenlere bağlamak mümkündür. Hastane öncesi acil tıp uygulamalarında tanıklı resüsitasyonu engellemek çoğu zaman mümkün değildir. Hastane öncesi acil tıp çalışanlarının tanıklı resüsitasyona etik bakış açılarını araştırmak ve araştırma sonucuna göre politika önerisinde bulunmak amaçlanmaktadır.

Yöntem: Araştırma prospektif tanımlayıcı tipte bir anket çalışması olarak tasarlanmıştır. 18 Şubat 2022 ile 18 Mart 2022 tarihleri arasında Kırşehir Sağlık İl Müdürlüğü İl Ambulans Servisi Başhekimliği bünyesinde çalışan ATT, paramedik, sağlık memuru, hemşire ve hekimlere hazırlanan anket yüz yüze uygulanmıştır.

Bulgular: Katılımcıların çoğunluğunun kadın, önlisans mezunu, ATT ve paramedik olduğu ve mesleki sürelerinin 6-10 yıl arasında olduğu bulunmuştur. ATT ve paramediklerin sorulara verdikleri yanıtlar karşılaştırıldığında sadece "Hastane öncesi alanda yaptığınız resüsitasyona hasta yakınlarının tanıklığı hastaya zarar verebilecek bir duruma neden olabilir mi?" sorusuna verilen cevapta istatistiksel olarak anlamlı farklılık saptanmıştır. Bunun yanında hastane öncesi alanda yapılan tanıklı resüsitasyonun etik boyutları aile ve aile dışı bireylerin tanıklığı, mesleki profesyonellik, hastanın mahremiyeti ve bilgi gizliliği, yas tutma süreci, sağlık personelinin güvenliği, zarar vermeme gibi başlıklar altında incelenmiştir.

Sonuç: Hastane öncesi alanda yapılan tanıklı resüsitasyonun birçok tartışmalı etik boyutu olup, bunlara ilişkin düzenlemeler ve eğitimlerin yapılması gerekmektedir.

Anahtar Kelimeler: Acil Tıp Etiği, Hastane Öncesi Acil Tıp, Klinik Etik, Tanıklı Resüsitasyon, Tıp Etiği

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Introduction

During resuscitation, the patient's relatives are routinely removed from the resuscitation area. This is based on the assumption that patient relatives who witness aggressive resuscitation efforts compromise clinical decisions and medical staff performance. This approach has often been a barrier to the implementation of witnessed resuscitation in health centers.[1]

The routine prevention of family members' witnessing during resuscitation efforts in emergency departments was questioned in the early 1980s. At that time, many physicians believed that following resuscitation procedures would have a negative impact on people with low sociocultural levels. On the other hand, some studies conducted over the time showed that witnessing resuscitation by patients' relatives did not have a negative impact on the individuals, contrary to the physicians' opinion, and the opinion prevailed that witnessed resuscitation should be allowed whenever possible. In 1987, the idea was expressed that witnessing resuscitation by family members could be offered as an option, and witnessed resuscitation was included in some guidelines in the United States. While these developments indicate that physicians' instinct to protect patients' families is unfounded, they also raise concerns about patient's privacy, confidentiality and family rights.[2-4]

Physicians continued to oppose witnessed resuscitation on the grounds that the unconscious patient's right to privacy is not different from that of the conscious patient. The second reason was the potential negative impact of witnesses on the resuscitation team and the stress they would place on medical personnel. The third reason is the possibility of a lawsuit against the medical personnel due to the fact that the patients' relatives would also witness a possible medical error.[2]

It is an important issue of discussion whether a person would want to remain with his or her loved ones during an event that threatens his or her life. Witnessed resuscitation practices can also be discussed in the context of basic biomedical ethical principles such as beneficence, nonmaleficence, respect for autonomy and justice. Basic ethical principles related to witnessed resuscitation practices can guide discussion of issues such as professionalism, benefit to the patient, equitable health care, the right of the patient and patient's relatives, privacy, confidentiality and respect for human dignity.[5,6] Although debates about benefits and harms continue, international guidelines on resuscitation agree that resuscitation with family witness is generally beneficial.[7] In addition, it was found that the majority of family members preferred to remain with their patients during resuscitation and witnessed resuscitation with family members present increased satisfaction and had a calming effect on patients' relatives.[8,9]

Witnessed resuscitation is often performed by prehospital emergency caregivers because of the nature of the service. In both national and international literature, the ethical aspects of witnessed resuscitation from the perspective of prehospital emergency caregivers has not been adequately studied. The purpose of this study is to examine the ethical perspectives of emergency caregivers in the prehospital setting regarding witness resuscitation and to make a policy proposal based on the research findings.

Materials and Methods

The study was designed as a prospective descriptive questionnaire study. The questionnaire was applied face-to-face for emergency medical technicians (EMT), paramedics, health officers, nurses, and physicians working in the prehospital emergency medical services in Kırşehir province between February 18, 2022 and March 18, 2022. The study population consists of approximately 250 health personnel working in prehospital emergency services in Kırşehir.

There is no valid and reliable scale for the research topic. For this reason, datas were collected using socio-demographic datas and a questionnaire consisting of 20 questions, which was developed after an extensive literature review.

In basic descriptive statistics, mean, standard deviation, median, minimum, and maximum are used for numerical variables, while frequency and percentage are used for categorical variables. Chi-squared analysis was used for group comparisons. $p<0.05$ was accepted as statistical significance in all analyzes. Analyzes were performed using SPSS v.21.0.

Ethical Consideration

This study was conducted after obtaining the ethics committee approval from the Non-Interventional Clinical Research Ethics Committee of Kırşehir Ahi Evran University Faculty of Medicine, dated 21.12.2021 and decision number 2021-21/200. Following the approval of the ethics committee, institutional approval was obtained from the Kırşehir Provincial Health Directorate on 17.02.2022. Data were collected from subjects who voluntarily consented to participate in the study. There is no conflict of interest in this study.

Results

A total of 155 volunteers participated in the study. The mean age of the participants was 30.88 ± 7.032 years and the median was 29 years (21-60). The mean career duration of the participants was 9.75 ± 6.596 years, the median was 10 years, and the minimum and maximum career durations were 1 and 35 years. 53.5% (n=83) of participants were female, 44.5% (n=69) had an associate degree, and 53.5% (n=83) were EMTs. 64.5% of participants were in their first 10 years of career (***Table 1***).

Table 1. Socio-demographic Data

Variable	Category	n	%
Gender	Male	72	46.5
	Female	83	53.5
Education Level	Bachelor's	60	38.7
	High School	18	11.6
	Associate Degree	69	44.5
	Post Graduate	8	5.2
Profession	EMT	83	53.5
	Doctor	6	3.9
	Nurse	1	0.6
	Paramedic	58	37.4
	Health Officer	7	4.5
Career Duration	< 5	53	34.2
	6 - 10	47	30.3
	11 - 15	29	18.7
	16 - 20	18	11.6
	21 - 25	4	2.6
	26 - 30	3	1.9
	> 30	1	0.6

84.5% of the participants performed witnessed resuscitation in the prehospital area. Of the participants 92.3% do not want family members and 87.1% do not want nonfamily members to witness resuscitation. The response rates indicate that professional autonomy is threatened during the witnessed resuscitation. 92.3%

of the participant reported that witnessed resuscitation poses a risk to the safety of healthcare givers. Although these are the prominent findings, interesting results have been obtained on ethically controversial issues. The rests of the responses of the participants about the witnessed resuscitation in the prehospital area are given in ***Table 2***.

Table 2. Responses to Survey Questions

	Question	Yes		No	
		n	%	n	%
1	Have you ever done a witnessed resuscitation in the prehospital area?	131	84.5	24	15.5
2	Would you like the patient's family members to witness the resuscitation you perform in the prehospital area?	12	7.7	143	92.3
3	Would you like non-family relatives of the patients to witness the resuscitation you perform in the prehospital area?	20	12.9	135	87.1
4	Does the presence of the patient's relatives in the prehospital area affect your decision to start resuscitation?	63	40.6	92	59.4
5	Does the witnessing of patient's relatives affect the resuscitation duration you perform in the prehospital area?	77	49.7	78	50.3
6	Does the witnessing of patient's relatives affect your decision to terminate the resuscitation you perform in the prehospital area?	73	47.1	82	52.9
7	Does the witnessing of patient's relatives affect your decision to refer the patient to the hospital during the resuscitation you perform in the prehospital area?	72	46.5	83	53.5
8	Does the witnessing of the patient's relatives to the resuscitation performed in the prehospital area stress you out?	127	81.9	28	18.1
9	Does the witnessing of the patient's relatives to the resuscitation performed in the prehospital area pose a risk to the safety of the health personnel?	143	92.3	12	7.7
10	Does witnessing the resuscitation you perform in the prehospital area make it easier for the relatives of the patient to accept death?	43	27.7	112	72.3
11	Does witnessing the resuscitation you perform in the prehospital area cause a situation that may harm the patient?	83	53.5	72	46.5
12	Is witnessed resuscitation in the prehospital area a patient right?	44	28.4	111	716
13	Is witnessed resuscitation in the prehospital area a right of the patient's relative?	25	16.1	130	83.9
14	Does witnessed resuscitation in the prehospital area violate the patient's bodily privacy?	103	66.5	52	33.5
15	Does witnessed resuscitation in the prehospital area violate the patient's confidentiality?	88	56.8	67	43.2
16	Does witnessed resuscitation you perform in the prehospital area make it easier to inform the relatives of the patient's death?	61	39.4	94	60.6
17	Does witnessed resuscitation you perform in the prehospital area reduce the reaction to the health personnel when the death news is announced?	45	29.0	110	71.0
18	Does the willingness of family members to witness resuscitation in the prehospital area mean the presence of the patient's consent?	18	11.6	137	88.4
19	Do you think that witnessed resuscitation you perform in the prehospital area is against human dignity?	69	44.5	86	55.5
20	Does witnessed resuscitation you perform in the prehospital area cause you any legal concerns?	105	67.7	50	32.3

When comparing the responses of paramedics and EMTs, a statistically significant difference (p=0.04) was found only in the response to the question *"Does witnessing the resuscitation you perform in the prehospital area cause a situation that may harm the patient?* (***Table 3***).

Table 3. Comparison of the responses of EMTs and Paramedics to the survey questions

Survey Question	EMT	Paramedic n (%)	p value
Q1	72 (86,7)	46 (79,3)	0,256
Q2	3 (3,6)	7 (12,1)	0,092
Q3	14 (16,9)	6 (10,3)	0,332
Q4	35 (42,2)	22 (37,9)	0,728
Q5	44 (53)	27 (46,6)	0,496
Q6	37 (44,6)	27 (46,6)	0,864
Q7	43 (51,8)	24 (41,4)	0,236

Q8	68 (81,9)	47 (81)	0,999
Q9	76 (91,6)	54 (93,1)	0,999
Q10	21 (25,3)	19 (32,8)	0,349
Q11	**38 (45,8)**	**37 (63,8)**	**0,041**
Q12	18 (21,7)	20 (34,5)	0,123
Q13	10 (12)	10 (17,2)	0,464
Q14	52 (62,7)	40 (69)	0,476
Q15	43 (51,8)	35 (60,3)	0,390
Q16	36 (43,4)	17 (29,3)	0,112
Q17	25 (30,1)	16 (27,6)	0,851
Q18	7 (8,4)	8 (13,8)	0,407
Q19	35 (42,2)	27 (46,6)	0,610
Q20	57 (68,7)	35 (60,3)	0,370

Discussion

Witnessed resuscitation, an ethically important debate, is performed in hospital emergency services and intensive care units in several countries around the world. Although it is a common situation in prehospital emergency medicine practice, there are not enough studies on it.[10] In this study, 84.5% of the participants stated that they performed witness resuscitation in the pre-hospital setting. This supports the view that witnessed resuscitation in the prehospital setting is a common practice among prehospital emergency medicine professionals and is an ethical issue that should be studied.

Witnessing Resuscitation by Family Members or Nonfamily Members: Although many clinicians believe that witnessed resuscitation may harm the patient, there are also opinions argue that it is a part of family-centered health care because of its positive contribution.[11] In the pediatric group, there is an opinion that witnessed resuscitation is less beneficial to the patient's family than in adults.[12] Although there is a view that witnessed resuscitation reduces the negative impact on family members after the patient's death, the importance of selecting an appropriate family member to witness resuscitation is emphasized.[13,14]. However, given the realities of prehospital emergency medicine, it does not seem possible to select the appropriate family or nonfamily person to witness resuscitation. Of the volunteers participated in this study, 92.3% do not want family members and 87.1% do not want nonfamily members to witness resuscitation.

Professional Autonomy in Witnessed Resuscitation: There are many factors that may influence the decision-making process in cases where there is inadequate or no health policy guidance for witness resuscitation.[15] In a study conducted by Demir F. with physicians and nurses, almost 85% of the participants stated that they could easily work with family members present during resuscitation and that their performance and the results of the procedure would not be affected. It was also highlighted that one of the disadvantages of witnessed resuscitation is that medical professionals may not feel comfortable in the presence of witnesses.[16] In other study conducted by Erbay H. , it was found that witnessed resuscitation performed in the prehospital area negatively affects the performance of the healthcare team and causes anxiety.[10] In contrary, Abuzeyad FH. et al found that witnessed resuscitation did not have a negative impact on health care workers.[17] While 81.9% of the volunteers who participated in this study stated that the patient's family members witnessing resuscitation stressed them, 59.4% stated that it affected their decision to start resuscitation, 50.3% stated that it affected the duration of resuscitation, and 52.9% stated that it affected their decision to terminate resuscitation, and 53.5% stated that it did not affect their decision to refer to the hospital. These response

rates indicate that the professional autonomy of volunteers participating in the study is threatened during the witnessed resuscitation efforts.

Safety of the Healthcare Givers: In witnessed resuscitation practices, healthcare givers may have to support grieving, angry, and anxious patient relatives and control their emotions before, during, and after resuscitation.[18] This situation most likely poses a risk to the safety of healthcare givers working in the prehospital area. In parallel, 92.3% of the volunteers participating in the study reported that witnessed resuscitation poses a risk to the safety of healthcare givers.

The Grieving Process: Invasive procedures used during resuscitation may also have an impact on patients' families. Erogul M et al investigated this effect and showed in their study that witnessed resuscitation performed in a hospital emergency department produced symptoms of posttraumatic stress disorder in patients' relatives.[19] In a study by Compton S et al, it was found that unsuccessful witnessed resuscitation can increase symptoms of posttraumatic stress disorder in patients' relatives.[20] In this study, 72.3% of participants reported that witnessed resuscitation did not facilitate acceptance of possible death by patients' relatives.

Nonmaleficence: There are opinions that witnessed resuscitation is beneficial to both patients and family members, depending on conditions such as age, education, income level, and cultural characteristics.[21] In a study conducted by Grice A et al, 79% of patients reported that they would not benefit from witnessed resuscitation, whereas 21% reported that they would.[3] A study by Omran S. et al. highlighted that resuscitation with family members present may negatively affect the quality of patient care.[22] If the health care team decides to perform witnessed resuscitation, the potential benefits to both parties should be considered and measures should be taken to avoid harm to the patient and witnesses.[13] %53 of the participants in the study indicated that witnessed resuscitation could lead to a situation that could harm the patient.

Patient Rights and Family Members Rights: Witnessed resuscitation has disadvantages, such as psychological trauma for patients and relatives, violations of patients' rights, and negative attitudes of witnesses that will affect the patient and healthcare team. Nevertheless, there are some opinions that argue that witnessed resuscitation is actually a right of the patient (the right to holistic health care) and the patient's relatives. The view advocating the right of the patient's relatives is stronger.[23] The desire of the patient's relatives to witness the resuscitation can also be interpreted as a demand for health care professionals to respect the autonomy of the patient's relatives.[5] In contrast to these views, 71.6% of the volunteer group participating in this study stated that witnessed resuscitation is not the patient's right and 83.9% of them stated that it is not the patient's relatives' right.

Privacy and Confidentiality: According to Bashayreh I and Saifan A, the relatives stated that the privacy of the patient during resuscitation is important. However, they also acknowledged that protecting the patient's privacy during witnessed resuscitation is not possible. It is expected that the physical privacy of female patients will be protected, but it is also desirable that the performance of the care team will not be compromised.[8] In a study conducted by Garcia-Martinez A and Meseguer-Liza C with nurses, it is noted that the healthcare team's efforts to protect patient privacy during witnessed resuscitation may have a negative impact on the healthcare team.[9] According to the study by Grice A et al, 2% of patients reported that witnessed resuscitation would violate the privacy.[3] Demir F emphasized that resuscitation under supervision is a violation of patient privacy and confidentiality.[16] According to our study, 66.5% of the participants stated that it means a violation of the patient's bodily privacy, and 56.8% of them stated that it means a violation of the patient's confidentiality.

Death Notification: Prehospital emergency medical personnel have serious difficulties in managing the process of terminating resuscitation and then death. Therefore, they need to be trained in these issues.[24] According to the results of a phenomenological study by Safari R et al., prehospital emergency medical personnel are concerned about being exposed to violence during death notification, and the attitude of patient relatives who do not accept death causes stress among staff. In addition, the personal characteristics of health care staff, the setting in which the death occurred, the manner of death, futile medical practices, and the decision to transfer are important factors that may cause problems in reporting the death.[25] 60.6% of the participants in our study stated that witnessed resuscitation would not facilitate the death notification to the patient's relatives, and 71% stated that it would not reduce the reaction given to the health care personnel who transmitted the death notification.

Patient's Autonomy and Patient's Relatives Autonomy: Patients and their relatives have the right to expect to be respected their autonomy in the event of a death that affects them. It is advocated that in witnessed resuscitation, the autonomy of the patient and patient's relatives should be respected and, if possible, practices should be carried out in accordance with their reasonable wishes.[13] Patients are often able to make decisions about their own health, including their manner of death, and to determine their future. For this reason, patients' autonomy supports the view that patients' family members can make decisions about witnessing resuscitation, regardless of the impact of the outcome on the patient. The same is not emphasized in the context of pediatric patient autonomy.[12] 88.4% of the participants indicated that the willingness of patients' relatives to witness resuscitation was not equivalent to the presence of patient consent.

Human Dignity: As in any medical practice, human dignity should be protected during witnessed resuscitation.[5] It is believed that the patient's relatives who are witnesses to resuscitation, especially if the patient is a woman, expect more attention to protect the patient's dignity.[8] Therefore, health care personnel should pay more attention to protect the patient's dignity during witnessed resuscitation for both professionalism and social expectation.[23] In fact, some studies have found that support the need to protect patient dignity during witnessed resuscitation.[3,21]. 55.5% of the participants in the current study stated that witnessed resuscitation is not a violation of human dignity.

Legal Concerns: There is a perspective on the performance of medical personnel may be negatively affected during witnessed resuscitation and leading to more stress and ethical and legal problems.[4,23] Ethical and legal problems may also vary by culture and country.[10] In the study by Anderson N et al, the decision not to withholding or terminate resuscitation was found to pose a medico-legal risk to prehospital emergency caregivers.[24] In contrast, the study by Garcia-Martinez A and Meseguer-Liza C showed that witnessing resuscitation by family members did not pose a stress or medicolegal risk to medical personnel.[9] 67.7% of participants in our study reported that witnessed resuscitation posed a legal concern for medical personnel.

Conclusion and Recommendations

In conclusion, it was found that the majority of prehospital emergency caregivers perform witnessed resuscitation and do not want family members and non-family members to witness resuscitation. In addition, the majority stated that witnessed resuscitation may interfere with professional autonomy, poses a risk to the safety of medical personnel, does not contribute positively to the grieving process, may harm the patient, and is not the patient right and relatives' right. At the same time, it was found to be a violation of privacy and confidentiality, does not facilitate the death notification, does not reduce the reaction to the health caregivers, does not imply the presence of patient consent, does not violate human dignity, and raises legal concerns. Considered in light of these findings, it is found witnessed resuscitation in the prehospital setting is an ethically controversial practice.

It is critical to re-organize ethics education on witnessed resuscitation, increase safety measures, and develop algorithms for prehospital emergency caregivers. In addition, it is recommended to take medical decisions regarding witnessed resuscitation according to the cultural structure of the society.

Limitations

The first limitation of this research is the small number of the participants. The second limitation is the number of physicians, nurses and health officers are less than paramadics and EMT.

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There is no conflict of interest.

Ethical Approval

This study was conducted after obtaining the ethics committee approval from the Non-Interventional Clinical Research Ethics Committee of Kırşehir Ahi Evran University Faculty of Medicine, dated 21.12.2021 and decision number 2021-21/200.

Author Contributions

Arif Hüdai Köken: Study conception and design, data collection, data analysis and interpretation, literature review, writing the article, critical review of the article.

Süleyman Ersoy: Study conception, data collection, data analysis and interpretation, critical review of the article.

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