

Perceptions on Specialist Palliative Care Involvement During and After Cardiopulmonary Resuscitation: A Qualitative Study

IMPORTANCE: Cardiopulmonary resuscitation (CPR) is an exceptional physical situation and may lead to significant psychological, spiritual, and social distress in patients and their next of kin. Furthermore, clinicians might experience distress related to a CPR event. Specialist palliative care (sPC) integration could address these aspects but is not part of routine care.

OBJECTIVES: This study aimed to explore perspectives on sPC integration during and after CPR. A needs assessment for sPC, possible triggers indicating need, and implementation strategies were addressed.

DESIGN, SETTING, AND PARTICIPANTS: A multiprofessional qualitative semistructured focus group study was conducted in a German urban academic teaching hospital. Participants were clinicians (nursing staff, residents, and consultants) working in the emergency department and ICUs (internal medicine and surgical).

ANALYSIS: The focus groups were recorded and subsequently transcribed. Data material was analyzed using the content-structuring content analysis according to Kuckartz.

RESULTS: Seven focus groups with 18 participants in total were conducted online from July to November 2022. Six main categories (two to five subcategories) were identified: understanding (of palliative care and death), general CPR conditions (e.g., team, debriefing, and strains), prognosis (e.g., preexisting situation, use of extracorporeal support), next of kin (e.g., communication, presence during CPR), treatment plan (patient will and decision-making), and implementation of sPC (e.g., timing, trigger factors).

CONCLUSIONS: Perceptions about the need for sPC to support during and after CPR depend on roles, areas of practice, and individual understanding of sPC. Although some participants perceive CPR itself as a trigger for sPC, others define, for example, pre-CPR-existing multimorbidity or complex family dynamics as possible triggers. Suggestions for implementation are multifaceted, especially communication by sPC is emphasized. Specific challenges of extracorporeal CPR need to be explored further. Overall, the focus groups show that the topic is considered relevant, and studies on outcomes are warranted.

KEYWORDS: emergency care; intensive care; interdisciplinary care; needs assessment; trigger

Cardiopulmonary resuscitation (CPR) is a major challenge for patients, their next of kin, and clinicians. Although survival has increased over the last decades, the functional outcome is often poor regarding physical, psychosocial, and spiritual wellbeing (1–4). Specialist palliative care (sPC) focuses on improving the quality of life for patients with life-threatening illnesses and their next of kin (5). Although sPC during and after CPR might be beneficial, there is no standardized sPC implementation in these situations. Underutilization

Theresa Tenge, MD¹

Manuela Schallenburg, MSc²

Yann-Nicolas Batzler, MD²

Sebastian Roth, MD¹

René M'Pembéle, MD¹

Alexandra Stroda, MD¹

Lennert Böhm, MD³

Michael Bernhard, MD³

Christian Jung, MD⁴

Stefan Meier, MD¹

Detlef Kindgen-Milles, MD¹

Peter Kienbaum, MD¹

Jacqueline Schwartz, MD²

Martin Neukirchen, MD^{1,2}

Copyright © 2024 The Authors. Published by Wolters Kluwer Health, Inc. on behalf of the Society of Critical Care Medicine. This is an open-access article distributed under the terms of the Creative Commons Attribution-Non Commercial-No Derivatives License 4.0 (CCBY-NC-ND), where it is permissible to download and share the work provided it is properly cited. The work cannot be changed in any way or used commercially without permission from the journal.

DOI: 10.1097/CCE.0000000000001077



KEY POINTS

Question: How is specialist palliative care (sPC) need and involvement in cardiopulmonary resuscitation (CPR) perceived by emergency department and intensive care clinicians?

Findings: This qualitative study highlights the role of communication, especially with next of kin after CPR, and the lacking time for this. The CPR circumstances, specific prognostic factors, and individual experiences mainly influence the perspectives on sPC need, timing, and trigger factors for involvement.

Meaning: As perceptions vary among clinicians and depend on individual understanding of palliative care and death, further studies should evaluate the impact on outcomes at patient, next of kin, and clinician levels.

of sPC is also common in other groups of critically ill patients and trigger factors have been suggested to identify patients in need of sPC (6–9). In preliminary work, different sPC trigger factors in the ICU according to existing literature were assessed for acceptance in German ICU personnel (10, 11). In these cohorts, “cardiac arrest” was not considered as a sPC trigger factor by physicians and nurses (10, 11). A systematic review examining triggered palliative care consultations in hospitalized and emergency department (ED) patients, found that none of the studies including “cardiac arrest” as a trigger was conducted in the ED setting (12). In a study on early triggered PC in medical ICU patients, the screening tool used for patient identification contained nine predetermined criteria and included the item “cardiac arrest with neurologic compromise” (9). Consequently, uncertainty exists if CPR should be a trigger factor for sPC and which specific needs should be addressed during and after CPR.

This qualitative study aims to explore the perceptions of ED and ICU clinicians regarding the general need for sPC involvement during and after CPR in the hospital setting. It aims to understand the clinicians’ perspectives on possible indicators that could trigger sPC in the CPR context and to identify implementation strategies. The identification of trigger factors and clinical suggestions could facilitate a standardized

need- and resource-appropriate introduction of sPC during and after CPR.

MATERIALS AND METHODS

Design and Ethical Approval

This is a qualitative multiprofessional focus group study. The study was approved by the local ethics committee of the Medical Faculty of Heinrich Heine University Duesseldorf, Germany (study number 2022-1903, approval date: June 30, 2022). All procedures were in accordance with the Helsinki Declaration of 2012. To ensure quality of reporting, we followed the 32-item Consolidated Criteria for Reporting Qualitative Research checklist (13).

Setting and Participants

The study was conducted at a tertiary care hospital in urban Germany with approximately 50,000 inpatient cases annually. The hospital has a long-established sPC center, comprising a sPC unit (300 patients/yr), the sPC consultation team (1200 patients/yr), and an outpatient sPC team (400 patients/yr). Each year, the hospital provides care for around 240 out-of-hospital and around 160 in-hospital cardiac arrests. For this study, we recruited physicians and nurses working in the ED and ICU (surgical and internal medicine). Adult participants were eligible if they were previously involved in the treatment of patients undergoing CPR. To explore perspectives from different professions and experience levels, we included nurses, residents, and (senior) consultants, and conducted focus groups separately among the groups. Participants were recruited via email or direct contact with study team members or department leaders. Inclusion was performed after written informed consent was obtained from all participants. We aimed to conduct focus groups with four to eight participants (13); however, due to the participants’ scheduling requirements, we performed focus groups with two to four participants.

Data Collection

The interview guide comprised open-ended questions addressing participants’ experiences and perspectives on sPC integration in CPR (**Table 1**; and **Appendix A**: Interview Guide <http://links.lww.com/CCX/B330>). The questions were developed collaboratively within

TABLE 1.
Topics of the Semistructured Interview Guide

Semistructured Interview Guide
1) Introduction: study background, personal presentation, procedure
2) Obtaining permission to record the interview, begin recording
3) Exploration of CPR-related experiences and challenges
4) Perception of the need for specialist palliative care in CPR patients
5) Collection and discussion of possible trigger criteria
6) Description of possible implementation options
7) Stop recording
8) Closing of the interview

CPR = cardiopulmonary resuscitation.

an interdisciplinary and interprofessional working group (disciplines: anesthesia, palliative care, urology, intensive care, emergency care; professions: physicians, and nurses) and checked for clear and unique understanding in group discussions. The focus groups were conducted by two researchers (T.T., M.S.). T.T. served as the moderator and is a research fellow at the Center for Palliative Medicine with a background in clinical anesthesiology. Her interest in the study and professional background were transparently communicated to the participants before the start. M.S. as the comoderator has extensive experience in qualitative research and works as a postdoctoral research fellow at the Center for Palliative Medicine. In addition to checking for T.T.'s neutral role as a moderator, which was constantly present, she documented memos and asked follow-up questions. Memos could contain content that particularly caught M.S.'s attention or aspects of strong agreement or disagreement between participants. After each focus group, T.T. and M.S. compiled memos highlighting the main topics discussed. The focus groups took place online using Cisco Webex (Version 42.11.0.24187, 2022; San José, CA). The number of focus groups was not previously set as we aimed to include all interested participants and perceptions.

Data Analysis

The audio recordings of the focus groups which were conducted in German language were transcribed verbatim by T.T. according to simple principles (14). Statements used for the results were later translated

into English. The transcripts were used as data and formed the basis for the analysis. Memos that were prepared during and after the focus groups by T.T. and M.S. were incorporated into the analysis. Data were analyzed using the content-structuring content analysis according to Kuckartz (15). With this method, data are structured, analyzed, and interpreted based on main and subcategories in seven steps (Fig. 1). The initiating text work included the intensive reading of the transcripts, marking important aspects, and summarizing each focus group. From the interview guide and the text work, deductively and inductively thematic main categories were developed. Data were then coded with these main categories, and all text passages with the same coded main categories were collected. The inductive determination of subcategories followed to finally code the whole data material with the evolved category system. The analysis was conducted independently by T.T. and M.S. with regular discussion and reflection rounds.

RESULTS

From July to November 2022, seven focus groups were conducted involving 18 participants. Each focus group consisted of two to four participants and lasted between 34 and 84 minutes. Additional information on the professions, areas of practice, and demographic data are summarized in Table 2. The composition of the groups is detailed in Table 3.

Analysis of the data yielded six main categories, each comprising two to five subcategories (Fig. 2). The main categories are titled to reflect the overarching themes, whereas the subcategories highlight specific aspects within each theme. These main categories address the clinicians' general understanding of palliative care and death, the overall CPR conditions (e.g., team, debriefing, and strains), and the patient's prognosis by facing the preexisting situation or the use of extracorporeal support. Furthermore, the role of and communication with next of kin, treatment planning, and specific aspects of the implementation of sPC (e.g., timing, trigger factors) are the main categories.

Understanding

The perspectives on the need for sPC in CPR were influenced to a great extent by personal experiences and individual understanding of "sPC" and "death" in general.

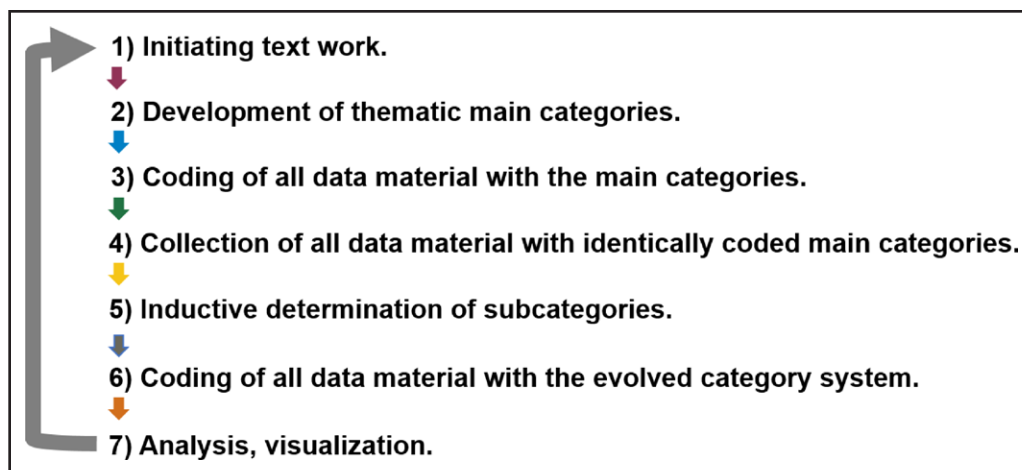


Figure 1. Seven steps of the qualitative content analysis according to Kuckartz (15).

It was mentioned that sPC staff uses “soft skills” in a way that “they are clearly superior to us” (consultant ICU 1). It was also stated: “A bit macabre ... When you tell patients they almost died today, that’s why I’ll propose a palliative care consultation tomorrow” (resident ICU 1). One must be cautious as patients may think “palliation means that doctors give up” (consultant ICU 2). Explaining and offering sPC integration to the next of kin also requires awareness regarding fears and misunderstandings. One participant said: “I think a psychosomatic consultation would be more helpful than sending palliative specialists to the people, who might then be even more insecure about their health situation” (resident ICU 2). For ED and ICU staff, there was a “threshold” for contacting the sPC team. They have experienced being the “black sheep” if they did it. Nursing staff also demanded to initiate sPC consultations as this is currently a physician’s duty. When asked to define sPC, some participants drew the conclusion that “high mortality means palliative care,” while others described sPC physicians as doctors for “life quality” with the primary goal of preventing “suffering.” Some considered sPC only for dying patients, others also for life-threatening conditions. Symptom control was regarded as an essential part of sPC; however, it was not mentioned as a possible task during or after CPR. “As intensive care physicians, we actually manage symptom control quite well by doing it ourselves” (consultant ICU 3). Perceptions of urgent need for sPC integration into critical illness were based on the following: “we completely ignore finiteness of man, and everything that is somehow related to this is ignored. And I don’t think that’s realistic or in the patient’s interest” (nurse ICU 1).

The nursing personnel further criticized that “the doctors always only talk about ‘serious situations’,” quite often the words “to die” or “to pass away” or “death” are not used.

General Conditions

The participants discussed their experiences of general CPR settings with the algorithm used during CPR, a debriefing

conducted afterward, and general strains that influence their perception of the need for sPC involvement. The “CPR algorithm was described as “the best algorithm available in medicine” (consultant ICU 2) which is commonly known. Due to this “strict scheme,” no need for palliative support during CPR was seen by most of the participants. Another aspect was crowded room settings with many people involved. “Debriefing” immediately after CPR gained “a higher priority” recently. Debriefing mainly took place after a “dramatic CPR situation” (e.g., young patient). It was noted that the threshold for initiating such debriefings “is lower among leaders if they have palliative care experience” (nurse ED 1). Participants further suggested internal training in palliative care for all ED or ICU “teams.” The participation of the sPC team for every debriefing was discussed controversially. As the CPR situation is “work between life and death,” different strains affect the team. Compassion for a patient may arise, especially when patients are young or already known. During CPR, the “patient is just material” and “emotional aspects are being excluded” to “stay focused” (nurse ED 1). The next of kin might react reproachfully after an unsuccessful CPR and transfer their “helplessness on the treatment team” (consultant ICU 2).

Prognosis

The patient’s prognosis regarding the individual preexisting status, the CPR setting with the possible use of invasive life support therapies and possible outcomes afterward influence the participants’ perceptions of sPC need and respective trigger criteria. In general,

TABLE 2.
Characteristics of Participants

Participants (<i>n</i> = 18)	<i>n</i> (%)		
Profession			
(Senior) consultant	7 (38.9)		
Resident	6 (33.3)		
Nursing personnel	5 (27.8)		
Area of practice			
Emergency department	6 (33.3)		
Surgical ICU	9 (50)		
Medical ICU	3 (16.7)		
Sex			
Female	10 (55.6)		
Male	8 (44.4)		
Age (yr)			
25–34	7 (38.9)		
< 35–44	8 (44.4)		
45–54	2 (11.1)		
55–65	1 (5.6)		
Working experience (yr)			
	In total	ICU	Emergency department
< 5	6 (33.3)	11 (61.1)	13 (72.2)
5–14	7 (38.9)	5 (27.8)	3 (16.7)
15–24	3 (16.7)	0 (0)	2 (11.1)
25–35	2 (11.1)	2 (11.1)	0 (0)
Cardiopulmonary resuscitation experience, estimated number			
< 10	2 (11.1)		
10–50	4 (22.2)		
50–100	7 (38.9)		
> 100	5 (27.8)		
(Specialist) palliative care experience in general			
Yes	7 (38.9)		
No	11 (61.1)		

CPR = cardiopulmonary resuscitation, ED = emergency department.

the participants described that “patients after CPR belong to the sickest in the hospital” (resident ED 1). The “outcomes” vary and depend on the “CPR setting.” In the ICU, trained staff, defibrillators, and medication are quickly available to treat reversible causes of CPR. Since no-flow time, duration of CPR, and the need for repetitive CPR are major indicators for an individual’s outcome, one participant expressed that it cannot be said during early CPR whether the sPC team is needed (resident ICU 3). For this, the “preexisting situation”

of the patient before CPR is more relevant. Factors indicating the need for sPC mentioned by study participants are as follows: oncologic disease, terminal disease, high symptom burden, multiple diseases, high age, limiting chronic diseases, heart failure, or pulmonary disease with oxygen therapy. The special circumstances of extracorporeal life support (ECLS) were a frequent topic in the interviews. “ECLS” in CPR is considered a “poor prognostic factor” as it is an ongoing CPR and the patient “is kept alive by hook or by crook”

TABLE 3.
Interview Groups

Group	Participants
1	Two consultants ICU, one senior consultant ED
2	Two nurses ED
3	Two residents ICU, two residents ED
4	Three nurses ICU
5	Two residents ICU
6	One senior consultant ED, one senior consultant ICU
7	One senior consultant ICU, one consultant ICU

ED = emergency department.

(nurse ICU 2). In the decisional phase of ECLS use in CPR, the team is “focused on invasive procedures” and the situation was not regarded as a palliative situation. In contrast, during “the course of the intensive care treatment,” sPC might be interesting. “But at some point, time is up and then you have to decide, machine off or not? Because the bridge leads nowhere. That is one example, and in this context, palliative care definitely makes sense” (consultant ICU 3).

Next of Kin

Although the patients are typically unconscious in the CPR process, their next of kin assume a central role. Participants discussed communication, time resources, and support strategies that could be provided through sPC involvement. The importance of “communication with the next of kin” was highlighted: “I think that it is very important, for example, to make contact with relatives as soon as possible” (consultant ICU 4). However, “sometimes the next of kin are not informed until the next day” as “time” is limited. Furthermore, “time is perceived differently for us or is perceived differently by us than by the relatives” (consultant ICU 1). Some participants concluded that sPC teams could be integrated when the ED or ICU teams do not have enough “time” to support the next of kin. However, one participant also emphasized, that sPC is no “fill-in, when we have no resources” (nurse ICU 3) and “next of kin work” is the primary care teams’ responsibility. It was noticed that if the CPR was unsuccessful, the next of kin were spoken to more extensively “and if the resuscitation was successful, no matter how long it lasted [...],

it is usually not discussed in such detail with the relatives” (consultant ICU 1). Additional support through sPC teams in next-of-kin discussions was regarded variously. Although some participants preferred sPC teams to “simply be there,” some participants favored “professional support” only for specific situations (e.g., complex family dynamics). A possible confusion of the next of kin caused by too many contact persons was discussed and the responsibility for leading communication by the primarily caring team was emphasized. Another participant added that “in the cases, in which I spoke to the relatives myself afterwards, I coped better” (resident ICU 4). Need for sPC was rather seen to “support” when next of kin “wait outside the door.” Furthermore, participants discussed a possible (sPC-guided) “presence of next of kin during CPR”, a scenario they had not previously encountered.

Treatment Plan

As an aspect of sPC integration, treatment planning with a focus on the patients’ will and decision-making, in particular, were discussed. The “patient’s will” might not always be clear or available during CPR as the focus lies on emergency care. According to an ICU consultant, advance directives play a “subordinate role” as they often are not precise enough or available. Although some participants saw a beneficial role of sPC in the assessment of the patient’s presumed preferences in an acute scenario, some emphasized that the sPC team has no “special tool.” For “decision-making” after successful CPR, a checklist was suggested with which the current patient’s status, the goals of care, and planned communication with the next of kin can be captured.

Implementation

For the practical implementation of sPC in the CPR process, participants discussed their opinions on timing, trigger factors, and end-of-life care. The “timing” of sPC implementation during and after CPR was controversially discussed. In acute situations, “the focus is on the CPR success” and there is “no benefit, but immediately after a successful CPR, I recognize a high value of palliative medicine” (resident ED 1). As exact timing is often impossible in the ICU due to unforeseen events, timeframe suggestions for a sPC visit were “immediately,” “the day after” or after 2–3 days when the



Figure 2. Qualitative focus group study setting (*encircled*), surrounded by the results (main categories, *bold*, with their respective subcategories) addressing the patient, their next of kin, the intensive/emergency care teams, and the specialist palliative care (sPC) team in cardiopulmonary resuscitation (CPR) situations. The authors used Generative Pretrained Transformer 4, OpenAI's large-scale, multimodal model to create the illustrative images. ECLS = extracorporeal life support.

neurologic outcome can be assessed better. Whether CPR is a "trigger factor" for sPC was also debated controversially. Opinions ranged from every CPR, every successful CPR with a return of spontaneous circulation, to the opinion that CPR is only intensive care and does not indicate the need for sPC. One participant recommended using the "surprise question," which involves the question, "Would I be surprised if this patient died in the next twelve months?" (resident ED 1). Other participants regarded missing curative options, poor prognosis while being awake, or a transferal to the sPC unit when the patient is not immediately dying as indications for sPC. "End-of-life care" was a topic mainly discussed by the ED personnel. They described that when the ED team decides not to further proceed

with life-sustaining treatment, a situation arises where professional end-of-life care is required. Here, a sPC team member who was not part of the previous emergency situation can provide support for patients and their next of kin.

DISCUSSION

With this qualitative focus group study, we aimed to explore the perception of multiprofessional clinicians on the integration of sPC into care during and after CPR. Given the high mortality rates and often impaired quality of life post-CPR, sPC could offer benefits for patients, their next of kin, and clinicians. Our findings provide insight into the study participants'

perspectives on the following research questions: 1) Is there a general need for sPC during or after CPR? 2) What might be trigger factors that indicate a need? 3) How could sPC be implemented in CPR care?

Need for sPC in and After CPR

During CPR, participants described the patient as “material” with the primary focus on saving lives. Most participants did not perceive the presence of sPC team members during CPR as beneficial and rather viewed it as potentially disruptive, given the already crowded environment. Our results align with a qualitative analysis investigating the organization of resuscitation teams for in-hospital cardiac arrest in top-performing hospitals in the United States (16). All hospitals had teams composed of members from diverse disciplines, yet sPC within the team has not been discussed (16). In our study, all participants raised the topic of communication with next of kin together with the question of sPC needs. Although some suggested offering sPC to all next of kin after CPR, some wanted integration only when family dynamics are complex. The reason for the need for sPC was mainly the lack of time in ED and ICU teams, but sPC should not be the “fill-ins.” The fact that next of kin communication was described as more intensive when CPR was not successful, reflects the results of a study on family satisfaction in the ICU in which the families of patients dying in the ICU were more satisfied (17). Besides support for next of kin, support for the ED and ICU teams themselves was mentioned, especially by nurses. This observation is supported by the results of a study by Emple et al (18). In this prospective study, moral distress was higher in nurses compared with physicians when caring for patients with mechanical circulatory support and coping strategies differed among the professions (19, 20). Although nurses chose “increasing use of palliative care” as the most useful strategy to reduce moral distress, physicians most commonly selected “regular debriefing sessions” (18).

We also observed an influence on the general understanding of sPC. Participants who emphasized positive experiences with sPC involvement rather viewed standardized implementation as beneficial. Furthermore, this study shows the persistent perception that there is only a need for sPC when clinicians “give up” on patients, which in turn may reflect fears and stigma about sPC. This barrier to appropriate sPC integration

in our study addressing specifically CPR situations is one aspect leading to underutilization of sPC in critical and intensive care in general. Early integration of sPC has not only shown positive effects in cancer care, but also in the ICU setting regarding quality of life, symptom control, goals of care planning, ICU resources, and costs (9, 21–24). Further studies should investigate the outcomes and effects of sPC integration in CPR care on patient, next of kin, and clinician levels. A first approach has been made in the pediatric population for out-of-hospital cardiac arrests and the authors conclude that studies to understand the benefits and barriers of sPC integration into standard post-CPR care are urgently warranted (25).

Trigger Factors for sPC

The question of specific trigger factors indicating sPC needs revealed divergent views. On the one hand, “CPR” itself was mentioned as a trigger, on the other hand, trigger factors in the context of CPR were suggested. Some participants mentioned factors with respect to the situation before CPR, some also stated post-CPR factors. In an exploratory survey among ICU physicians and nurses in Germany, approximately 85% of ICU physicians did not accept “cardiac arrest” as a trigger factor (10). Nurses also did not accept the factor “condition after CPR” as a trigger (11). At our institution, sPC integration is initiated upon request representing the “consultative model” (26). Only during the COVID-19 pandemic, automated sPC integration occur in all COVID-19 extracorporeal membrane oxygenation patients (27). In this study, some saw ECLS as just another intensive care measure, whereas others urgently demanded standardized sPC involvement of all ECLS patients due to the high mortality of this procedure. Even though the use of sPC in patients with extracorporeal systems increased in the past years, studies on sPC in CPR-ECLS are scarce (19).

Possible Implementation

In discussions about the clinical integration of sPC in post-CPR care, the factors of time and availability were seen as important, but perceptions and opinions varied. Some participants saw a potential role for sPC due to a lack of time for ED and ICU staff to care for and support patients and their next of kin. From their point of view, the sPC team could contribute to team

discussions about the patient's wishes, preferences, and therapy goals. To better face the overall situation and the ethical aspects, the sPC team could also be present during discussions with the next of kin. Other participants saw the integration of sPC as critical in a situation where capacity is tight and the integration consumes time and resources. They preferred one ICU consultant to be the primary and ongoing contact person for the next of kin and were afraid that another team may cause confusion. Further suggestions involved a checklist with questions and aspects from an sPC point of view that ICU teams should consider when caring for patients after CPR. Although several documents and recommendations exist in Germany (e.g., a documentation form for therapy goal limitation) and the United States ("Choosing Wisely in Critical Care"), this study is in line with previous research demonstrating the need for improvement in everyday clinical practice through evidence and work on structural processes (20, 28).

Limitations

This qualitative research project has several strengths and limitations. The study gives detailed and personal insights into this underrepresented research topic. However, the interview guide was not pilot-tested and focus groups were held in German language, but the results are presented in English. Translation was performed by T.T. and checked for the same way of meaning and understanding by the study team and a native English speaker. We aimed to interview focus groups with 4–12 participants but due to workload and shifts of interested participants, we worked with smaller group sizes. To our impression, this allowed open and in-depth discussions among the different groups of professions and experience levels. A saturation within the focus groups was not intended as this study is a first approach to the topic. Among the group of participants who were all interested in this topic, the focus groups repeatedly encountered the same themes which indicates an adequate sample size for our study. During the independent data analysis, T.T. and M.S. constantly held discussions to reduce potential bias due to their personal background and experiences influencing data interpretation. The study was conducted at an urban academic care hospital with a long-established sPC service as previously described.

Perceptions on the topic can highly vary among other healthcare settings.

CONCLUSIONS

This study shows ED and ICU multiprofessional perceptions about the need for sPC during or after CPR, possible trigger factors, and implementation options. The findings are insights into clinicians' thinking on previous and current practices and opinions paving the way for discussions on sPC integration into CPR. Although all participants highlighted the importance of the topic, opinions on sPC needs varied depending on roles, areas of practice, and the individual understanding of and experiences with sPC and death. Although some participants urged for CPR as a standardized trigger for sPC, others defined, for example, pre-CPR-existing multimorbidity or complex family dynamics as trigger factors. Suggestions for implementation were multifaceted, especially the communication skills of the sPC team were emphasized. The specific challenges of extracorporeal CPR as a bridge between life and death and the specific role of sPC in ECLS need to be explored further.

ACKNOWLEDGMENTS

The authors thank all study participants for their time, effort, and motivation to discuss our research questions. They also thank Mark Short (a medical student at the Royal College of Surgeons in Ireland) for providing editorial support.

- 1 Department of Anesthesiology, Medical Faculty and University Hospital Duesseldorf, Heinrich-Heine-University Duesseldorf, Duesseldorf, Germany.
- 2 Interdisciplinary Center for Palliative Medicine, Medical Faculty and University Hospital Duesseldorf, Heinrich-Heine-University Duesseldorf, Duesseldorf, Germany.
- 3 Emergency Department, Medical Faculty and University Hospital Duesseldorf, Heinrich-Heine-University Duesseldorf, Duesseldorf, Germany.
- 4 Department of Cardiology, Pulmonology and Vascular Medicine, Medical Faculty and University Hospital Duesseldorf, Heinrich-Heine-University Duesseldorf, Duesseldorf, Germany.

Supplemental digital content is available for this article. Direct URL citations appear in the printed text and are provided in the HTML and PDF versions of this article on the journal's website (<http://journals.lww.com/ccejjournal>).

Dr. Tenge has received a grant (Walter Benjamin Fellowship, TE 1567/1-1) from the German Research Foundation. The remaining

authors have disclosed that they do not have any potential conflicts of interest.

For information regarding this article, E-mail: manuela.schallenburger@med.uni-duesseldorf.de

REFERENCES

1. Yan S, Gan Y, Jiang N, et al: The global survival rate among adult out-of-hospital cardiac arrest patients who received cardiopulmonary resuscitation: A systematic review and meta-analysis. *Crit Care* 2020; 24:61
2. Hirlekar G, Karlsson T, Aune S, et al: Survival and neurological outcome in the elderly after in-hospital cardiac arrest. *Resuscitation* 2017; 118:101–106
3. Hu FY, Streiter S, Sison SM, et al: Frailty and survival after in-hospital cardiopulmonary resuscitation. *J Gen Intern Med* 2022; 37:3554–3561
4. Wachelder EM, Moulart VRMP, van Heugten C, et al: Dealing with a life changing event: The influence of spirituality and coping style on quality of life after survival of a cardiac arrest or myocardial infarction. *Resuscitation* 2016; 109:81–86
5. World Health Organization: Palliative care. Available at: <https://www.who.int/news-room/fact-sheets/detail/palliative-care>. Accessed December 2, 2023
6. Evans BA, Turner MC, Gloria JN, et al: Palliative care consultation is underutilized in critically ill general surgery patients. *Am J Hosp Palliat Care* 2020; 37:149–153
7. Secunda KE, Krolikowski KA, Savage MF, et al: Evaluation of automated specialty palliative care in the intensive care unit: A retrospective cohort study. *PLoS One* 2021; 16:e0255989
8. Neukirchen M, Metaxa V, Schaefer MS: Palliative care in intensive care. *Intensive Care Med* 2023; 49:1538–1540
9. Ma J, Chi S, Buettner B, et al: Early palliative care consultation in the medical ICU: A cluster randomized crossover trial. *Crit Care Med* 2019; 47:1707–1715
10. Adler K, Schlieper D, Kindgen-Milles D, et al: Will your patient benefit from palliative care? A multicenter exploratory survey about the acceptance of trigger factors for palliative care consultations among ICU physicians. *Intensive Care Med* 2019; 45:125–127
11. Schallenburger M: Welche Eigenschaften und Situationen von Patient*innen auf der Intensivstation führen zu einer Anfrage der Mitbehandlung durch die spezialisierte Palliativmedizin durch betreuende Pflegekräfte und in wie weit werden diese als sinnvolle Triggerfaktoren anerkannt? Eine Mixed-Methods-Studie mit Instrumentenentwicklung [Which characteristics and situations of patients in the intensive care unit lead to a request for co-treatment by specialized palliative care by caring nursing staff and to what extent are these recognized as meaningful trigger factors? A mixed-methods study with instrument development]. Duesseldorf, Dissertationsschrift, 2022. Available at: <https://docserv.uni-duesseldorf.de/servlets/DocumentServlet?id=60182>. Accessed December 2, 2023
12. Kistler EA, Stevens E, Scott E, et al: Triggered palliative care consults: A systematic review of interventions for hospitalized and emergency department patients. *J Pain Symptom Manage* 2020; 60:460–475
13. Tong A, Sainsbury P, Craig J: Consolidated criteria for reporting qualitative research (COREQ): A 32-item checklist for interviews and focus groups. *Int J Qual Health Care* 2007; 19:349–357
14. Dresing T, Pehl T: Praxisbuch Transkription: Regelsysteme, Software und praktische Anleitungen für qualitative ForscherInnen [Transcription Practice Book: Rule Systems, Software and Practical Instructions for Qualitative Researchers]. Marburg, Eigenverlag, 2011
15. Kuckartz U: Qualitative Inhaltsanalyse. Methoden, Praxis, Computerunterstützung [Qualitative content analysis. Methods, Practice, Computer Support]. 4. Auflage. Germany, Beltz Juventa, 2018
16. Nallamothu BK, Guetterman TC, Harrod M, et al: How do resuscitation teams at top-performing hospitals for in-hospital cardiac arrest succeed? A qualitative study. *Circulation* 2018; 138:154–163
17. Wall RJ, Curtis JR, Cooke CR, et al: Family satisfaction in the ICU: Differences between families of survivors and nonsurvivors. *Chest* 2007; 132:1425–1433
18. Emple A, Fellow P, Nakagawa S, et al: Moral distress associated with caring for critically ill patients requiring mechanical circulatory support. *Am J Crit Care* 2021; 30:356–362
19. Williamson C, Verma A, Hadaya J, et al: Palliative care for extracorporeal life support: Insights from the national inpatient sample. *Am Surg* 2021; 87:1621–1626
20. Society of Critical Care Medicine: Choosing wisely in critical care. Available at: <https://www.sccm.org/Clinical-Resources/Choosing-Wisely-in-Critical-Care>. Accessed December 2, 2023
21. Kain DA, Eisenhauer EA: Early integration of palliative care into standard oncology care: Evidence and overcoming barriers to implementation. *Curr Oncol* 2016; 23:374–377
22. Vanbutsele G, Van Belle S, Surmont V, et al: The effect of early and systematic integration of palliative care in oncology on quality of life and health care use near the end of life: A randomised controlled trial. *Eur J Cancer* 2020; 124:186–193
23. Mercadante S, Gregoretti C, Cortegiani A: Palliative care in intensive care units: Why, where, what, who, when, how. *BMC Anesthesiol* 2018; 18:106
24. Duncan AJ, Holkup LM, Sang HI, et al: Benefits of early utilization of palliative care consultation in trauma patients. *Crit Care Explor* 2023; 5:e0963
25. Gouda SR, Bohr NL, Sarah Hoehn K: Palliative care utilization following out-of-hospital cardiac arrest in pediatrics. *Crit Care Explor* 2022; 10:e0639
26. Pan H, Shi W, Zhou Q, et al: Palliative care in the intensive care unit: Not just end-of-life care. *Intensive Care Res* 2022; 3:77–82
27. Tenge T, Brimah S, Schlieper D, et al: Specialist palliative care consultations in COVID-19 patients in the ICU: A retrospective analysis of patient characteristics and symptoms at a German University Hospital. *J Clin Med* 2022; 11:5925
28. German Society for Interdisciplinary Intensive Care, Medicine (DIVI): Documentation form for therapy goal limitation. Available at: <https://www.divi.de/aktuelle-meldungen-intensivmedizin/divi-empfehl-t-neuen-dokumentationsbogen-zur-therapiebegrenzung>. Accessed February 3, 2023