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Research Article

What challenges of family-clinician conversations in the intensive care unit can teach us: A cross-sectional survey study

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ABSTRACT

Objectives: To explore the perspectives of intensive care unit personnel and patients' family members on challenges of family-clinician conversations and corresponding learning needs.
Research Methodology/Design: Cross-sectional survey study.
Setting: Two medical intensive care units of a German academic tertiary care hospital.
Main Outcome Measures: Data were collected using an investigator-designed online survey with open- and closed-ended questions. Descriptive statistics were conducted to determine frequencies, free-text responses were analysed using directed qualitative content analysis.
Findings: The responses of 94 family members, 42 nurses, and 28 physicians were analysed (response rate: 45%). Regarding the clinicians' perspective, three main themes of challenges were deduced: ICU setting, Staff-related challenges, and Family-related challenges. Conversely, the majority of participating family members reported challenges both cognitive and affective in nature, e.g., remembering provided information or discussing the patient's prognosis. Most clinicians stated their need for a corresponding communication skills training to successfully navigate those challenges in clinical practice, particularly regarding conveying complex information, handling strong emotions, and managing family-clinician conflicts.
Conclusion: The identified communication challenges underline the issues of family-clinician conversations that require improvement, making it possible to determine corresponding strategies to attain the desired outcome. Further research is needed to elicit best-practices of communication skills trainings for family-clinician conversations and its implementation in critical care settings.
Implications for clinical practice: These findings invite clinicians to engage in self-reflection to identify individually perceived communication challenges and learning needs. Faculty and healthcare institutions may further use these findings to conceptualise tailored communication skills trainings to contribute to the advancement in nursing and medical education.

Introduction

Family-clinician conversations in the intensive care unit (ICU) play a pivotal role in shaping the patient's journey as well as their families' mental health trajectory [1–3]. The complexities inherent in these conversations present a multifaceted terrain fraught with challenges, ranging from prognostic uncertainty to heightened emotional states and diverse cultural perspectives [4,5]. ICU nurses and physicians are tasked with the delicate balance of providing comprehensive information, fostering shared decision-making, building rapport, and offering empathic support amidst the backdrop of clinical urgency [6,7]. Conversely, families grappling with the gravity of their loved one's condition often find themselves overwhelmed by the rapid pace of decision-making and its emotional repercussions [8,9]. Despite its evident complexity and importance, a substantial gap exists in the provision of communication skills trainings specifically designed to address the challenges ICU personnel and patients' families experience regarding family-clinician conversations in the ICU. Consequently, clinicians may solely rely on their personal experience or on recommendations from published literature without an opportunity to practice and

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improve their communication skills before interacting with their patients' families [6,10,11]. This gap not only undermines the delivered quality of care but may also exacerbate the emotional burden experienced by both the families and the clinicians, thus leading to conflicts and eroding trust in the healthcare team [12,13]. Therefore, this study seeks to delve into the nuanced challenges of family-clinician conversations in the ICU by investigating the perspectives of ICU personnel and patients' family members as well as corresponding needs for specific training. By delineating perceived key challenges from both groups, this study aims to improve the conceptualisation of future communication skills trainings and to thus contribute to the advancement in nursing and medical education in critical care settings.

Materials and methods

This paper presents the findings from the third section of a comprehensive cross-sectional survey study on family-clinician conversations in the ICU conducted in 2021. Full details of the study methods and findings from previous sections have been previously published [14,15]. In brief, an online survey on family-clinician conversations in the ICU with open- and closed-ended questions and free-text options was designed by the investigators. In the present paper, the findings regarding perceived challenges of family-clinician conversations in the ICU are reported. This section aimed to answer the following research questions: which aspects of family-clinician conversations in the ICU do ICU nurses and physicians (hereafter "clinicians") and ICU patients' family members (hereafter "families") consider challenging? Do clinicians express a need for a communication skills training to effectively navigate those challenges? If affirmative, which specific communication skills do they aspire to improve?

Inclusion and exclusion criteria

Family members were defined according to the Guidelines for Family-Centred Care in the Neonatal, Paediatric, and Adult ICU as those individuals related or unrelated to the patient "with whom the patient has a significant relationship" [16]. Adult family members with sufficient German proficiency for participating in the survey were eligible if they were listed as the patients' primary contact person in their charts. Up to two family members per patient could be included. Patients were considered eligible if they had been hospitalised within the timeframe spanning from December 2017 to March 2020. The exclusion of patients admitted after March 2020 was deliberate, allowing for an adequate lapse of time between the potentially distressing ICU experience and the subsequent participation in the survey.

Eligibility criteria for the clinicians included sufficient German proficiency and working in the ICUs at the time of data collection or during the preceding three years.

Participant recruitment

The clinicians were contacted by email including the survey link. After screening the patients' charts, family members of eligible patients were invited to participate by telephone by a current member of the ICU team. After agreeing to participate, the families were sent the survey link via email. The clinicians and families were not sent any further reminders within the timeframe of potential participation.

Survey instrument

The survey consisted of two German questionnaires, one for the clinicians and one for the families. The instrument was pre-tested by eight patients' family members, four nurses, and two physicians and adapted according to their annotations. The instrument was not further tested in a feasibility or pilot study. An English translation of the questionnaire can be found in the supplements.

Measurement

The clinicians were asked the open-ended question "What aspects of family-clinician conversations in the ICU do you find challenging?" followed by the closed-ended question whether they wished for a communication skills training specifically focussing on family-clinician communication. In case of an assertive answer to the latter, they were asked the open-ended question "Family-clinicians conversation in the ICU: Which communication skills would you like to improve?".

The families were asked for challenging aspects of family-clinician conversations using a multiple-choice question with pre-defined challenges and a free-text option (for further details, see supplements).

Data analysis

For analysis, we included all survey records with free-text responses. Of the clinicians' records, those with missing responses to both free-text items or to the item identifying the clinicians' group allocation (i.e., nurse or physician) were excluded. Of the families' records, those who had not responded to the item of perceived challenges were excluded. For both groups, missing demographic data were not imputed and deviating sample sizes were reported with the corresponding results. Descriptive statistics were used to determine frequencies. The analyses were performed using IBM® SPSS Statistics, version 28.0.0.0.

All free–text responses of the clinicians were imported into Microsoft Excel® and coded by hand per group by two independent coders (ER, JGB) following a directed approach to qualitative content analysis as elaborated by Mayring [17]. The coding themes were identified by a prior review of pertinent literature on challenges of family-clinician communication in the ICU (see supplements). Both coders were experts of the research domain under study. They were blinded to the demographic data of the respondents, except for their group allocation. Subsequently, all materials assigned a specific code underwent additional scrutiny to ensure semantic validity. Consensus among all authors regarding the definitive codes and coding process was achieved by discussion. For comprehensive insight into the procedural framework of the content analysis, we refer to previous publications [14] and the supplements.

Translation process

The results were translated into English by one author (ER), a certified translator proficient in English and German. Another author (JGB) conducted a review of the translation procedure, with any discrepancies addressed through discussion.

Ethical considerations

This survey was registered as part of the study titled Intensive Care Communication Study: Family Meetings (IC-CO) in the German Clinical Trials Register (DRKS00024007). The study was reviewed and approved by the local institutional review board (IRB) of the Faculty of Medicine of the University of Cologne in Germany on April 26, 2021 (21-1073_1) and conducted in accordance with the ethical standards of the responsible committee and with the Helsinki Declaration of 1975. For the survey, informed consent was waived by the IRB, as no IP addresses were tracked and response records were automatically anonymised. All participants agreed to the privacy policy on the first page of the survey.

Results

Response rate

Overall, 426 family members, 93 nurses, and 51 physicians were eligible for participation. A maximum of two family members per patient were contacted, leading to the initial recruitment of 218 family

members (51.2 %) linked to 185 patients. Reasons for non-participation included time constraints, lack of interest, or a persisting emotional burden due to their ICU experience. On average, participating family members completed the survey 2.49 years (SD:0.43; 95 %CI [2.43,2.56]) after the patient's ICU admission.

A total of 362 invitations were sent to the recruited family members and eligible clinicians, yielding 234 records (64.6 %) of participation. After excluding records with missing values, 164 records were included for analysis (overall response rate: 45.3 %), comprising records of 94 family members (response rate: 43.1 %), 42 nurses (response rate: 45.2 %), and 28 physicians (response rate: 54.9 %).

Participant demographics

Of the included patients (N = 185), the majority were male (59.5 %) with a median age of 60 years (IQR:51–70). Most were admitted to the ICU due to respiratory failure (40 %) or sepsis (15.1 %). The participating family members were predominantly female (64.9 %) with a median age of 51 years (IQR:41–58.75). Most had a university degree (48.9 %) and were native German speakers (78,7%). None of them needed to be excluded from participation due to insufficient German proficiency. Most family members were the patients' spouses (29.8 %), children (27.7 %), or parents (21.3 %).

Most of the participating nurses were female (59.5 %) with a median age of 31 years (IQR:28.75–38.25) and more than eight years of work experience (47.6 %, N = 41). At time of data collection, most nurses were employed full-time in the participating ICU (59.5 %). Most of the nurses were German native speakers (90.5 %). In their majority, the participating physicians were male (57.1 %), with a median age of 31 years (IQR:31–34) and between four and eight years of work experience (50 %). At time of data collection, most physicians were employed full-time in the participating ICU (82.1 %). All physicians were native German speakers.

Challenges of family-clinician conversations in the ICU: the clinicians' perspective

Most nurses (90.5 %, NU) and physicians (96.4 %, PH) stated challenges of family-clinician conversations in the ICU as free-text responses that were allocated to three main themes: ICU setting, Staff-related challenges, and Family-related challenges (Fig. 1). Overall, 38 and 27 free-text responses by nurses and physicians, respectively, were coded. All coded German free-text responses are shown in the supplements.

Theme: ICU setting

The theme ICU setting was defined as "structural, organisational, or legal aspects of intensive and critical care". Both nurses and physicians considered high workload, time constraints, and the patient's dynamic disease trajectories as challenges inherent to the intensive care environment. One nurse summarised this as follows:

"*Finding time for the conversation and meeting the families' needs while being under pressure because you know that the work you would otherwise be doing is left undone*" (NU24).

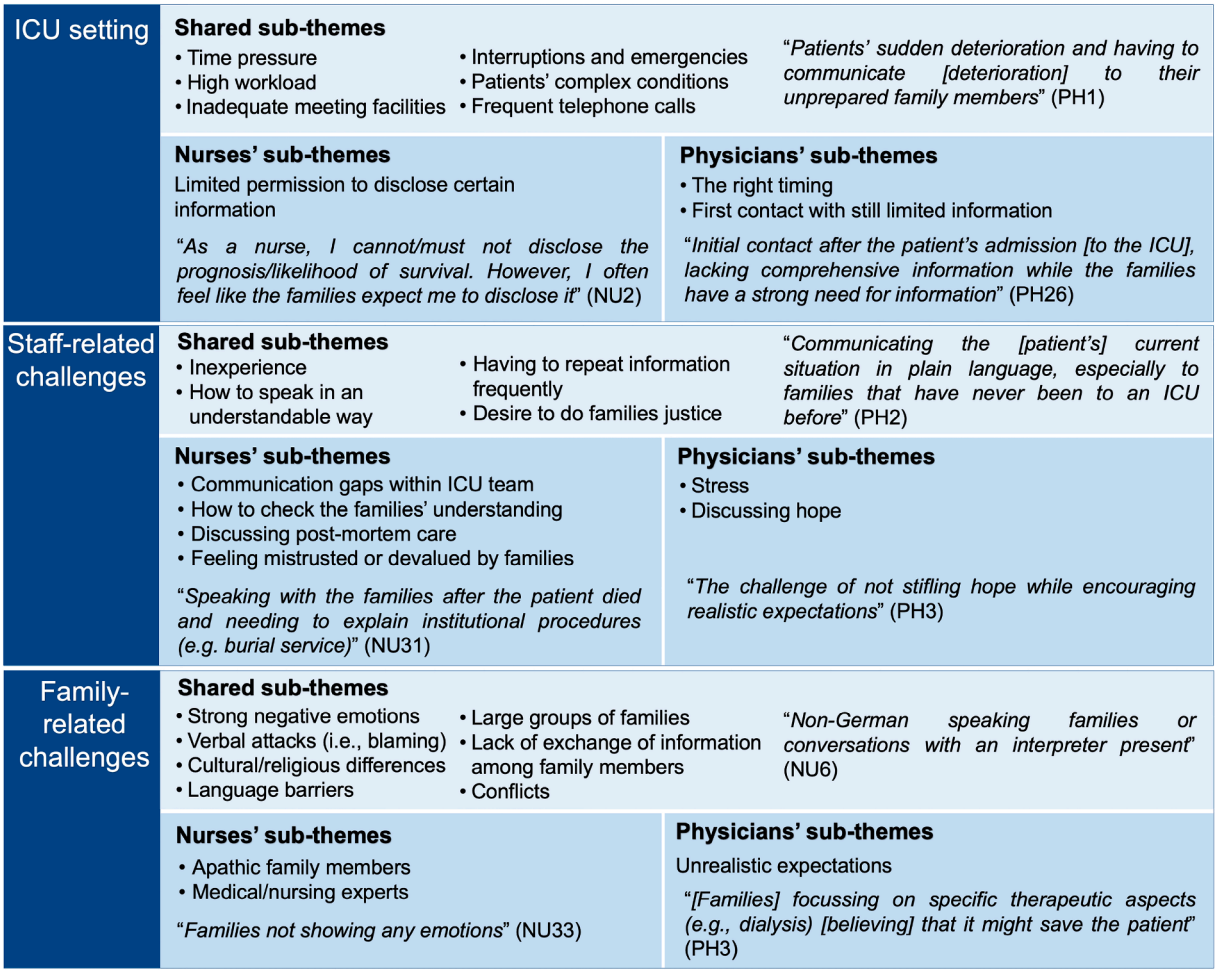

Fig. 1. Themes and sub-themes with example responses: Challenges of family-clinician conversations in the ICU; Shared themes include themes that both nurses and physicians stated in their responses; PH = Physician, NU = Nurse, with participant number.

In addition, one nurse pointed out that due to legal restrictions in Germany, they are not allowed to disclose a patient's diagnosis nor prognosis, which leads to uncomfortable encounters when talking to their patients' families:

"*As a nurse, I cannot/must not disclose the prognosis/likelihood of survival. However, I often get the feeling that relatives expect me to disclose it.*" (NU2).

Theme: Staff-related challenges

The theme Staff-related challenges was defined as "individual, intra-, and interprofessional aspects of the ICU team members", and included the clinicians' sensed inexperience in conducting family-clinician conversations in the ICU, their difficulties in providing information in an understandable way or in checking the families' understanding, and their own feelings of stress and unease, particularly when discussing hope or care following the patient's death in the ICU. One physician explained that it is particularly challenging to speak with families who have no prior experience with intensive care settings and are thus additionally overwhelmed by the ICU environment:

"*Communicating the [patient's] current situation in plain language, especially if family members have never visited [the ICU] before."* (PH2).

A perceived challenge seemingly unique to the nurses was feeling devalued or mistrusted by the family members. Additionally, one nurse stated communication gaps within the ICU team to further complicate family-clinician conversations in the ICU:

"*[It's challenging] not knowing what has already been discussed with my medical colleagues or knowing that certain medical findings have not yet been disclosed and I thus must not talk about these findings [with the families], although they are often decisive for explaining the patient's current condition.*" (NU14).

Theme: Family-related challenges

The theme Family-related challenges was defined as "family characteristics, behaviour, and interactions" and included language barriers, cultural and religious differences, unrealistic expectations, showing strong negative emotions, namely anger, fear, or sadness, or no emotionality at all, as well as verbal attacks of blaming and accusing the ICU staff, and conflicts between the families and the ICU team. In addition, the necessity of the ICU team to often repeat the same information was considered burdensome, as it disrupted the usual care processes during their shifts:

"*[What's challenging are] families who don't communicate with each other and constantly have the same questions. In addition, some call at least three times during one shift and ask for an update.*" (NU25).

Need for a specific communication skills training

Most nurses (69 %) and physicians (67.9 %) expressed their wish for a specific communication skills training on family-clinician conversations in the ICU. Of the 29 nurses and 19 physicians who had expressed their wish for a specific communication skills training, 23 (79.3 %) and 11 (57.9 %), respectively, gave one free-text response each on which corresponding skills they would like to improve. All of their free-text responses were coded and three main foci for future communication skills trainings could be deduced: (1) Conveying complex information in a structured and understandable way, (2) handling strong emotions and aggressive family behaviour, and (3) managing conflicts (Fig. 2).

Challenges of family-clinician conversations in the ICU: the families' perspective

Fig. 3 shows the participating families' responses regarding perceived challenges of family-clinician conversations in the ICU. Most family members expressed challenges that related primarily to the provided information, such as remembering (55.9 %) or understanding the information (34.4 %), proactively stating their difficulties in understanding provided information (19.4 %), or asking questions (15.1 %) to which one family member added:

"*To prioritise and determine the importance of the questions you want to ask.*" (FM1).

In addition, 26 % of the family members stated decision making as another challenge in this context.

Further perceived challenges related to emotional issues, e.g., asking for the patient's prognosis (35.5 %), asking for spiritual care or psychological support (31.2 %), or expressing one's feelings (25.8 %).

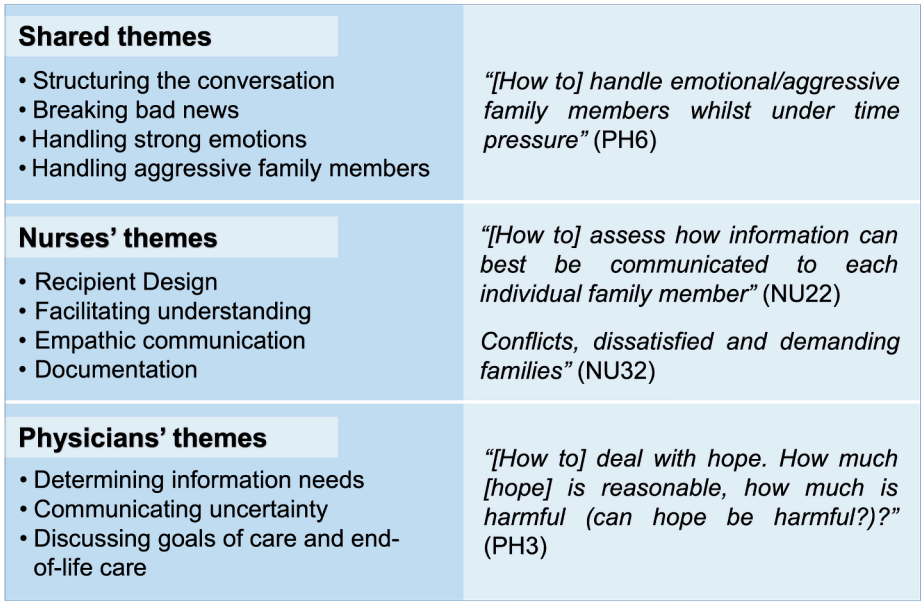

Fig. 2. Themes: Communication skills the participants would like to improve, with example responses; Shared themes include themes that both nurses and physicians stated in their responses; PH = Physician, NU = Nurse, with participant number.

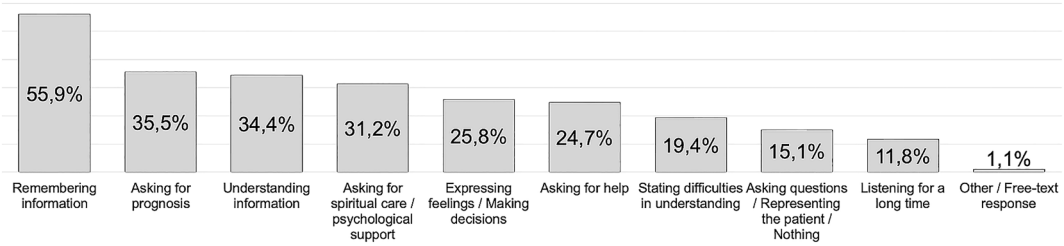

Fig. 3. Family perspective (N = 93): Challenges of family-clinician conversations in the ICU; multi-response item.

Discussion

In the present survey study, the participating clinicians and patients' family members reported myriad challenges of family-clinician conversations in the ICU. In addition, the clinicians expressed a need for communication skills training to navigate those challenges.

The nurses and physicians perceived challenges in three primary domains. First, in the ICU setting itself as an overarching difficult environment for conducting sensitive conversations. These findings corroborate previously published data that have repeatedly described the working conditions in the ICU as barriers to successful communication [4,10,12,18]. In a qualitative focus group study from South Korea, 27 ICU nurses considered time constraints and workload to further complicate nurse-family communication in the ICU [10]. In another multi-methods study from Belgium, 27 ICU nurses and eight ICU physicians also stated time and work pressure as aggravating obstacles to efficient communication [5]. In the present study, one particularly intriguing finding regarding the ICU environment was the difficulty of interruptions during family-clinician conversations. In this regard, in a Canadian study in one paediatric and one general ICU, 47 nurses and 18 physicians were observed in their professional tasks, which also included communication with patients' families, and the frequencies of being interrupted [19]. On average, the observed nurses and physicians were interrupted during their professional workflow once every 18.3 and 15.8 min, respectively. Interestingly, in both groups, most interruptions were caused by professional communication, defined as "[a]ny work-related discussion with another staff member" [19].

While medical emergencies are inevitable interruptions, avoiding non-urgent professional communication issues presents an opportunity for improving family-clinician conversations in the ICU, albeit requiring a team effort.

The participants of the present survey further described another source of interruptions, namely frequent telephone calls of families asking for an update. These findings are supported by the results of a cross-sectional study from the United States of America (USA) in which 509 registered nurses of the American Association of Critical Care Nurses rated "family continually calling the nurse for updates" as one of the highest scored challenging family behaviours in the ICU [20]. One possible way of managing this challenge was indicated by a project conducted in one tertiary hospital in Switzerland in which one designated family member was called by the nurse in charge of the patient once a day at a prior convened time [21]. In addition, a two-hour window for calling the physician in charge was offered [21]. The project leaders reported that following implementation, the overall frequency of telephone calls had decreased, that the families felt informed, and that the nurses perceived less interruptions of their daily work [21]. Robust data from rigorous studies describing potential effects of such projects are needed to confirm these findings.

In a work environment as demanding as the ICU, it is not entirely unexpected that the strain on the nurses and physicians further increases by the necessity of constantly demonstrating exceptional communication skills. In the present study, as a second domain of challenges, the clinicians stated feeling stressed, feeling unprepared to master family-clinician conversations, feeling uncomfortable with discussing dying and death, or feeling mistrusted by family members. These findings are not an isolated case. On the contrary, they substantiate previously published data on the emotional burden that the ICU team is confronted with. In the aforementioned focus group study from South Korea, the ICU nurses also reported feeling devalued and mistrusted by the families as well as uncertain about managing families' emotions, reactions, and complaints, leading to self-doubt and avoidance [10]. They also disclosed feeling indifferent and losing empathy after experiencing demoralising scenarios in the ICU [10]. A systematic review and *meta*-analysis of 25 studies shed further light on such psychological repercussions the ICU personnel experiences due to their work in the ICU [22]. Totalling 12,536 ICU nurses and 8,187 ICU physicians, 42 % and 28 %, respectively, showed high levels of emotional exhaustion, 41 % and 38 %, respectively, felt low personal accomplishment, and 32 % and 33 %, respectively, showed high levels of depersonalisation [22].

Conversely, in the present study, the majority of participating family members also stated challenges both cognitive and emotional in nature. Thus, from the families' point of view, their difficulties in understanding the provided information and their need for emotional support should be discussed. In a systematic review of 20 studies on the families' psychological state during the ICU experience, termed as Family Intensive Care Unit Syndrome (FICUS), a myriad of observed symptoms was described, including symptoms of anxiety, depression, stress, sleep disorder, fatigue, or a sense of helplessness, with anxiety and depression being the most commonly reported with prevalences of up to 80 % and 70 %, respectively [23]. In addition, various studies described poor comprehension of patient-related information in up to 71.2 % of critical care patient's family members [9,24]. The primary family needs in the ICU as explored previously are receiving timely, honest, and understandable information as well as emotional support and reassurance [25,26]. Yet, there still seems to be room for improvement when it comes to satisfying those needs. In a secondary analysis of a multicentre prospective cohort study within 13 ICUs in six US American medical centres, 204 family meetings with 369 surrogate decision-makers of patients with high risk of death were analysed [27]. Only in 21.1 % of the conferences, emotional support was provided [27]. These data confirm that both the ICU personnel and the families experience high levels of stress and strong emotions when interacting with each other in the ICU. While these findings are certainly not an excuse for inappropriate family or ICU staff behaviour and should not be interpreted as such, they still offer first clues for an explanation of why family-clinician conversations in the ICU sometimes lead to conflict [12]. In the context of family-clinician conflicts, workplace violence needs to be discussed. In the present study, the participating clinicians described aggressive and accusatory family behaviour as challenging. Such expressions of verbal violence seem to be alarmingly prevalent in the ICU setting. In a systematic review and *meta*-analysis of 75 studies, data from interviews or surveys of 139,533 ICU health care providers from 32 countries reporting on their experiences with workplace violence in the ICU were analysed [28]. The frequency of violent incidents caused by family members ranged widely and reached up to 76 % in north American studies, and 79 % and 82 % in studies conducted in Europe and Asia, respectively, with verbal violence accounting for the majority of cases (as compared to physical or sexual violence) [28]. Yet, as the evidence

provided by the included studies was low and data showed high heterogeneity (I^2), these results should be interpreted with caution [28].

The third domain of challenges perceived by the clinicians were cultural or religious differences and language barriers. These perceived difficulties are supported by the findings of a qualitative survey analysis of 345 healthcare clinicians from 43 countries conducted by a task force of the World Federation of Intensive and Critical Care (WFICC) [29]. Their results even suggest that not only intercultural communication and language barriers but also the families' education level may be considered strong barriers to family-clinician communication in the ICU [29]. Another multi-methods study on intercultural family-clinician conversations from Belgium corroborated these results [5].

In the light of these findings, it was not surprising that in their majority, the clinicians expressed a wish for a communication skills training to effectively navigate these challenges. Their described learning needs confirmed those suggested in the aforementioned focus group study in which the interviewed ICU nurses stated they would like to engage in skills trainings for handling strong family emotions [10]. While data on such specific communication skills trainings are still scarce, published research suggests that such trainings enhance the clinicians' perceived self-efficacy regarding communication skills and interprofessional collaboration, particularly in the context of end-of-life discussions in the ICU [30–32]. Conversely, data on the impact of such trainings on ICU patient's family members are still ambivalent. In a randomised controlled trial (RCT) in France, the intervention nurses ("facilitators") participated in a 2-day communication skills training that included mediation and conflict management [33]. The facilitators subsequently engaged with the participating family members, starting within 24 h of ICU admission until three months after discharge. Yet, at one-, three-, and six-months follow-up, no significant differences between groups could be detected regarding the outcomes of post-intensive care syndrome-family (PICS-F), namely symptoms of anxiety, depression, or post-traumatic stress disorder [33]. In contrast, in another multicentre RCT in France in which the ICU clinicians had participated in interactive educational meetings that focused on end-of-life communication, a three-step communication support strategy for family members throughout the patient's dying process showed a positive impact on all PICS-F outcomes at six-months follow-up [2]. More research is clearly needed to comprehensively elaborate best-practices of communication skills training for effective family-clinician conversations in the ICU, focussing on both ICU personnel and family member outcomes.

Limitations

This study was limited by using a self-designed survey without elaborate feasibility- and pilot-testing. In addition, the design of the items differed between the clinician and family questionnaires, which may have influenced the families' responses and thus may have reduced the validity of the findings. To mitigate this limitation, the pre-selected options the families could choose from were based on published evidence on family challenges in the ICU. The additional free-text option allowed for expressions of any thoughts that spontaneously arose. Furthermore, the sample was relatively small, and the study was conducted in only two medical ICUs in one tertiary hospital in Germany. In addition, not all former patients' charts included contact details of their family members, nor did the researchers have access to all patients' charts of both ICUs, which may have resulted in selection bias. Selection bias may have been further exacerbated due to the likelihood that only families with particularly positive or negative experiences in the ICU may have chosen to participate. Thus, the results cannot be generalised and should be interpreted accordingly. The perspectives of other relevant members of the multidisciplinary ICU team were not investigated. As a result, the findings might not be applicable to other clinical settings. As data were collected anonymously, the families' records were not linked to the corresponding patient's clinical information. Thus, no comparative analyses could be performed to explore differences among bereaved family members and those associated with patients that were still alive at time of data collection. Neither did we investigate potential differences of family responses in relation to the amount of time that had passed between the patient's ICU admission and the families' participation in the survey. The families' responses might have been further influenced by the patients' current health status at the time of data collection or by recall bias. These limitations were mitigated by conducting the data analyses using a rigorous process.

Conclusions

This study serves as an exploration of the perspectives of ICU personnel and patients' families on challenges of family-clinician conversations in the ICU to inform researchers and faculty on how to design communication skills trainings as needed in clinical practice. Further robust data are called for to elicit best-practices of communication skills trainings and implementation in critical care settings. As healthcare systems strive to optimise patient-centred care and enhance quality metrics, addressing its communication challenges emerges as a paramount imperative. By further focussing on comprehensive educational initiatives tailored to the clinicians' learning needs, healthcare institutions can empower clinicians with the skill set and tools necessary to navigate sensitive conversations with patients and families with empathy, clarity, and professionalism.

Declaration of Generative AI and AI-assisted technologies in the writing process

During the preparation of this work the authors used ChatGPT in order to improve the language of individual sentences and paragraphs of the first draft of the manuscript. After using this tool, the authors reviewed and edited the content as needed and take full responsibility for the content of the published article.

CRediT authorship contribution statement

Eyleen Reifarth: Writing – review & editing, Writing – original draft, Visualization, Software, Resources, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualization. **Jan-Hendrik Naendrup:** Writing – review & editing. **Boris Böll:** Writing – review & editing, Software, Resources. **Matthias Kochanek:** Writing – review & editing, Supervision, Resources, Methodology, Conceptualization. **Jorge Garcia Borrega:** Writing – review & editing, Supervision, Methodology, Investigation, Formal analysis.

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Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Appendix A. Supplementary data

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