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# Interprofessional care for the ICU patient's family: solitary teamwork

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**ABSTRACT**

The aim of this study was to explore how interprofessional family care by ICU teams was reflected in their daily work. Data were collected from four ICUs in Norway. Fieldwork and focus groups with ICU nurses and physicians were conducted in addition to dyadic and individual interviews of surgeons and internists. In line with a constructivist grounded theory approach, the core category *"solitary teamworking"* was constructed. Together with three sub-categories, *proximity and distance, silent interprofessional work* and *a connecting link*, this core category conceptualizes interprofessional family care as a form of contradictory cooperation where physicians and nurses alternate between working alone and as a team. The sub-categories reveal three notable characteristics of interprofessional family care: (1) it is emotionally challenging, affected by proximity and distance to the families and between the clinicians, (2) it is silent, at a strategic and organizational level, and (3) nurses and family members have an essential role as a connecting link in the ICU team. Interprofessional family care needs strong involvement by an organization that supports and prioritizes family care, includes family members as an active part of the ICU team and emphasizes interprofessional dialogue.

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## Introduction

Family care is an essential part of the ICU team's interprofessional care. Studies (Chen et al., 2018; Reeves et al., 2015; Wong et al., 2015) have shown that efficient and well-functioning interprofessional cooperation, coordination and communication are of utmost importance to the family. The way in which they are cared for affects their satisfaction and ability to cope in a new and stressful situation when their loved one is critically ill (Chen et al., 2018).

## Background

Interprofessional care in the ICU is described as *'care provided by a team of healthcare professionals with overlapping expertise and an appreciation for the unique contribution of other team members as partners in achieving a common goal'* (Donovan et al., 2018). Physicians and nurses constitute the ICU team, supported by physicians and professionals from other specialties (Donovan et al., 2018; Ervin et al., 2018). Due to shift work and quick changes in the ICU patient's condition, team members may change from day to day. Interprofessional teamwork is also influenced by contextual, organizational, relational and processual factors such as culture, organizational support, professional power, routines and rituals (Reeves et al., 2019). Unstable team structures and external factors challenge effective team collaboration (Chaboyer & Bergman, 2019; Ervin et al., 2018).

In recent decades, family members have increasingly been acknowledged as a central part of the ICU team (Davidson et al., 2017; Donovan et al., 2018; Ervin et al., 2018). The closest family members usually know the patient well and often act on behalf of the patient, who might be unconscious or too sick to express his/her own preferences (Ervin et al., 2018; McAndrew et al., 2020). In addition to being essential caregivers who can positively affect the patient's condition, family members themselves need caring for in a demanding situation (Davidson et al., 2017; McAndrew et al., 2020; Mitchell & Wilson, 2019).

Family members are vulnerable to inconsistent and vague information from the healthcare team (Lind et al., 2012; Wong et al., 2015). The concept of patient- and family-centered care highlights the importance of family members' participation and collaboration with healthcare professionals in patient care (IPFCC, 2010). With a flexible visiting policy, frequent communication with clinicians and allowing their participation during handovers and medical rounds, they can be included in the ICU team (Briggs, 2017; Davidson et al., 2017; Donovan et al., 2018). Despite convincing evidence of the positive outcomes of patient- and family-centered care, the concept is not well established in ICUs. Several interprofessional-related barriers such as tensions, conflicts and miscommunication between clinicians have been identified (Hetland et al., 2018; McAndrew et al., 2020).

To our knowledge, previous studies have focused little on how physicians and nurses collaborate as a team on family care in the ICU. With the research question "*What are the characteristics of*

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*interprofessional family care in the ICU?,"* this study aimed to explore, through fieldwork and interviews, how ICU teams' interprofessional family care was reflected in their daily work.

## Method

The study design is a longitudinal explorative grounded theory approach, employing data triangulation using participant observation and interviews. Data triangulation was chosen to elicit a distinct and complete understanding of the complexities of interprofessional family care. Participant observation provides an inner perspective shedding light on phenomena in their natural setting, while research interviews provide comprehensive insight into clinicians' experiences (Timmermans & Tavory, 2007). Grounded theory is well-suited for studying participants' behavior and interactions in social settings (Charmaz, 2014). Inductive and abductive strategies are combined to develop concepts and theories grounded in data. Based on inductive data and with iterative and comparative strategies between data and analysis, conceptual categories emerge (Charmaz, 2014). This method is suitable for explorative studies in areas with little previous research (Charmaz, 2014). In this study, a grounded theory approach was chosen to elicit a broad view of ICU nurses' and physicians' interprofessional work with ICU patients' families.

Constructivist grounded theory, developed by Charmaz (2016) from Glaser and Strauss (1967) classical grounded theory, adopts original methodological strategies such as coding, memo-writing, theoretical sampling and parallel data collection and analysis (Charmaz, 2016). This version of grounded theory has its roots in pragmatism and relativism, and emphasizes the researcher and the participants as co-constructors of data (Thornberg & Charmaz, 2014). Knowledge is seen as socially produced, reality as fluid, indeterminate and open to multiple interpretations. Subjectivity and interaction are highlighted, data and analysis not seen as neutral. The researcher's reflexivity is emphasized to clarify how his/her previous research experience, interests, decisions and interpretations influence the research process and results (Thornberg & Charmaz, 2014).

### *Setting*

The study took place in four ICUs in Norway, one six-bed unit in a mid-range hospital and three 11–18 bed units in university hospitals with both surgical and medical patients. In each ICU, most patients needed mechanical ventilation. However, ICUs in the university hospitals offered more advanced intensive care than the mid-range hospital, such as extracorporeal membrane oxygenation and neurosurgery.

Two units had only single rooms, the others 1–4 bed rooms. The ICUs practised different visiting regulations independent of room size, from one hour three times a day, to a flexible visiting policy. Parents of children could always be present, and in end-of-life situations, all units made exceptions to their visiting policy.

The "core" ICU team usually consisted of one ICU nurse and one ICU physician directly involved in caring for each patient, supported by physicians from the patient's primary ward. Other professionals like physiotherapists, social workers and chaplains participated in the extended ICU team. Nurses worked bedside in three rotating shifts. The nurse-patient ratio was 1:1. The physicians also worked in rotation. In the daytime, several ICU physicians, primarily senior intensivists, shared responsibility for the patients, normally caring for one or two patients each. In the evenings and at night, generally one senior and one junior physician were on duty, normally also having work outside the ICU.

Nurses start each shift with a five-minute briefing, before a bedside shift report. Physicians make their daily pre-rounds in a meeting room in the ICU, often with the coordinating ICU nurse and physicians from the patients' primary wards present. Sometimes the entire group of physicians takes a short bedside round, or the physicians do their round alone, just to their particular patients. ICU physicians also have afternoon shift reports. All units use electronic health records, with computers available in all patient rooms.

### *Participants and sampling*

ICUs from different parts of Norway participated in the study. Requests were sent to the head of the ICUs by AMN or RL. After completing data collection and the first analysis in one ICU, they contacted the next. In each unit, the researcher (AMN or RL) was given a contact nurse who recruited the participants.

To come close to family care situations, the observer (AMN) followed one ICU team per shift, primarily bedside but also during daily activities such as pre-rounds, briefings and lunch breaks. After following the team in one to three shifts, the observer turned to another patient to ensure variation in observations of family care situations with other clinicians. Nurses and physicians in the ICUs received information about the study by e-mail and gave their consent to be observed directly to the researcher. Participant observations were conducted in 11–14 shifts (day and evening shifts, some at weekends) in each unit.

The researcher's contact nurse recruited participants to focus groups, orally or by e-mail. The participants were nurses and/or physicians from the same ICU. As requested by AMN, surgeons and internists were recruited for interviews through the head of their ward, the appointment confirmed by e-mail. Nineteen ICU nurses, 13 ICU physicians and eight surgeons/internists of different ages, gender and ICU experience participated either in focus groups, dyadic or individual interviews (Table 1).

**Table 1.** Participant characteristics for focus groups, dyadic and individual interviews.

| N = 40 | Gender female/male | Age median (range) | ICU experience median (range) |
|---|---|---|---|
| ICU* nurses (19) | 14/5 | 42 (28–60) | 10 (1–22) |
| Intensivists (13) | 1/12 | 44 (33–67) | 15 (3–38) |
| Surgeons (4) | 1/3 | 54 (39–59) | - |
| Internists (4) | 3/1 | 45 (36–65) | - |

*Intensive Care Unit

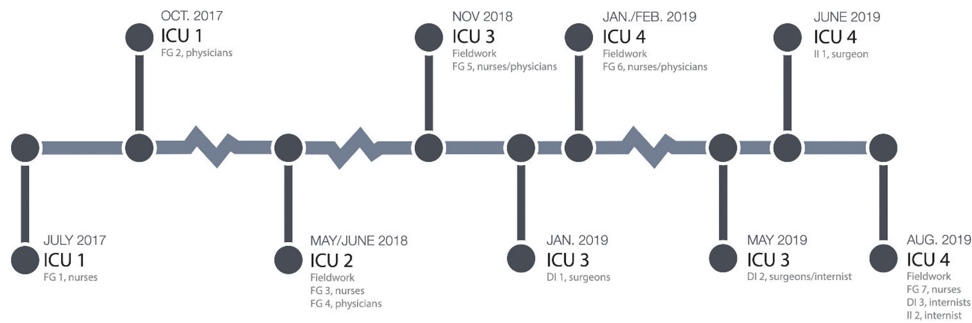


**Figure 1.** Timeline of data collection with subsequent analysis.

### *Data collection and analysis*

With a constructivist grounded theory approach, the researcher explores the participants' main concern, referred to as core category and sub-categories, and how this concern was addressed. These conceptual categories develop during the analysis from data, initial and focused codes to more abstract categories. With parallel data collection and analysis, the analysis started immediately after each data collection and gave direction to the next where the researcher returned to the field to collect more data to clarify codes, ideas, and assumptions. This process is called theoretical sampling (Glaser & Strauss, 1967). When new questions, insights and ideas emerge during the analysis, the researcher may expand the data collection methods or add new ones (Thornberg & Charmaz, 2014). Using the constant comparative method, the development of categories was an iterative process between data and analysis, comparing data, codes and categories. This included memo writing to focus on and understand the connection between codes and categories (Thornberg & Charmaz, 2014).

RL initiated and planned the project. With BSB, she conducted the first two focus groups, one with three ICU nurses and one with four ICU physicians at the mid-range hospital in July and October 2017 (Figure 1). The intention was to check the original interview guide and plan the rest of the study.

The interviews were transcribed and analyzed by AMN with line-by-line reading and initial coding of the transcripts. By going quickly but carefully through the data, short, simple and spontaneous initial codes were constructed. Based on the most frequent and significant initial codes the researcher constructed focused codes where larger segments of data were synthesized and conceptualized. For example, several initial codes concerning nurses' actions and communication between physicians and family members emerged early during the analysis of data from the first two focus groups. During the study this formed the sub-category "a connecting link."

Following the first data collection and analysis in ICU 1, the researchers expanded the data collection by conducting fieldwork and focus groups in ICUs 2–4 between June 2018 and August 2019 (Figure 1).

The fieldwork consisted of a total of 270 hours of participant observations in the three ICUs (Table 2) at university hospitals, offering the same level of treatment. AMN, who conducted the observations, is an experienced ICU nurse able to participate in basic nursing care and stay close to the realities faced by ICU physicians and nurses providing family care. The researcher observed clinicians throughout the shift (60% daytime and 40% evening shifts) to gain a comprehensive picture of family care. Intensive care is event-driven and time-pressured, often with rapid changes in the ICU patient's condition, which made it difficult to predict when family care situations might arise. Most of the observations were conducted in the patient's room, with clinicians in direct and indirect family care situations. Indirect family care situations included formal and informal meetings between clinicians such as shift rapports, rounds and lunch breaks where they talked about and made agreements concerning the ICU patient's family. Field notes were written during and after each shift. Participant observation enabled the researcher to ask questions and explore impressions in each specific family care situation around emerging codes and categories. Gradually the observations became more focused during the parallel data collection and analysis.

**Table 2.** Overall data collection.

| | ICU* 1<br>Mid-range hospital | ICU 2<br>University hospital | ICU 3<br>University hospital | ICU 4<br>University hospital |
|---|---|---|---|---|
| Participant observation | - | 76 hours | 97 hours | 97 hours |
| Focus group (FG)<br>(Participants per FG) | FG1:ICUnurses (3)<br>FG2:Intensivists (4) | FG3:ICUnurses (5)<br>FG4:Intensivists (5) | FG5: ICU nurses/ Intensivists (5) | FG6: ICU nurses/ Intensivists (5)<br>FG7:ICU nurses (5) |
| Dyadic interview (DI) | - | - | DI1: Surgeons<br>DI2: Surgeon/ Internist | DI3: Internists |
| Individual interview (II) | - | - | | II1: Surgeon<br>II2: Internist |

*Intensive Care Unit

Focus groups were conducted during the last week of the fieldwork, one with ICU nurses, one with ICU physicians (in ICU 2) and two with a mix of ICU nurses and physicians (in ICUs 3 and 4). This composition of the groups was chosen to identify different perspectives between the professions and explore interaction and discussion between them. In focus groups with both professions, the topic was generally physicians' and nurses' collaboration on informing families, in particular the planning and implementation of information sessions between physicians and families. However, since ICU nurses have various tasks (such as arranging visits) and spend most time with families, we decided to conduct a final focus group with nurses only, to ensure that the conceptual categories were saturated.

During the analysis of data from ICUs 1 and 2, focused codes regarding family care collaboration between ICU clinicians and physicians from the patients' primary ward emerged. It soon became clear that the ICU clinicians' collaboration with these physicians was also highly important for family care, especially regarding which clinician was responsible for informing relatives about what. To explore this aspect, data collection was further extended with dyadic and individual interviews with surgeons and internists in ICUs 3 and 4 (Table 2).

An interview guide covering broad topics was developed and used in the first focus groups (ICU 1). During further data generation, the interview guide was modified in accordance with the ongoing analysis and theoretical sampling. One question in the original interview guide was: "How does collaboration between physicians and nurses take place regarding the ICU patient's family?." Then, in the next focus group, we asked more distinct questions about the emerging focused codes. For example, to explore and collect more data about the codes that led to the sub-category *"silent interprofessional work"* one question was: "*Do you (i.e. physicians and nurses) talk to each other before a family meeting?.*"

A moderator (AMN or RL) chaired the focus groups while an observer (AMN, HSH, BSB, RL) observed the participants and made notes. The dyadic and individual interviews were conducted by the first author, using an adjusted interview guide. All interviews took place in a meeting room in the ICU, lasted between 37 and 96 minutes, were recorded digitally and transcribed verbatim by AMN.

During the analysis all authors contributed with their ideas and perspectives by discussing the emerging codes and conceptual categories.

### *Ethical considerations*

The principles of the Declaration of Helsinki (WMA, 2018) were respected and the institutional ethics review board (Regional Committee for Medical and Health Research Ethics – Ref.: 2016/1762) approved the study. Permission was obtained from the head of each ICU. ICU staff received information by e-mail and orally at the beginning of every shift. Posters containing information about the project were posted at the ICU entrance and along the corridors to inform visiting healthcare professionals and family members. The researcher (AMN) informed conscious ICU patients and visiting family members about the study. None refused to have the observer present.

All participants received verbal and written information about confidentiality and their possibility to discontinue participation whenever they wanted, without giving a reason. To protect confidentiality, transcriptions from field notes and interviews were anonymized. The participants have been given pseudonyms.

## Findings

In this study, interprofessional family care was highlighted as the participants' main concern. *Solitary teamworking* was constructed as a core category, including three sub-categories: *proximity and distance, silent interprofessional work* and *a connecting link*. Family care is an interprofessional responsibility in which clinicians are mutually dependent on, and affected by, each other's actions, views and statements.

*Solitary teamworking* indicates contradiction-filled interprofessional family care, in which nurses and physicians experience unity of purpose and support from their colleagues, but also have feelings of loneliness and of standing alone. Clinicians shift between working as a team and working alone.

> I envy the doctors, [. . .] it isn't easy to provide information, so they do their best, [. . .] but they inform and then they leave the room. So then we're left with the family for the next few hours.
>
> (Jon, ICU nurse FG 3 ICU 2).

Every ICU has a 'group' of experienced physicians and nurses forming the 'core' of the staff group. They have considerable authority and represent both safety and support for the others. Just as nurses felt safest meeting next of kin with an experienced physician, junior physicians valued having an experienced ICU nurse with them.

Clinicians praised and comforted each other and said spontaneously that they worked well together. Teamwork was most pronounced in complex and demanding situations. Nonetheless, the fieldwork showed that the clinicians spent most of their day engaged in their profession-specific tasks and that traditional hierarchical structures existed between them. The physicians had great authority by virtue of the formal decision-making power of their profession. The nurses were little involved in the physicians' discussions which took place outside the patient's room. They could feel isolated and alone and missed being more included.

> We nurses sometimes feel that we are little involved in those discussions. There's a lot more going on in the meeting room and other places in the unit than where we are as bedside nurses.
>
> (Andrew, ICU nurse, FG 6)

ICU culture and the clinicians' behavior could amplify the inequalities in the balance of power. This appears through the sub-categories.

### Proximity and distance

*Proximity and distance* refers to where physicians and nurses were situated in relation to the family members, the patient and each other, both physically and emotionally.

The nurses were almost always present in the patient's room and in contact with the patient's family, while the intensivists were more distant from the patient's room and family. Unlike the nurses, physicians usually had responsibility for several patients on the same shift. Physicians from the wards had most of their duties there or in the operating theater. Mostly, they were in the ICU only for some minutes each day. Both physicians and nurses expressed their understanding and respect for each other's duties, but the distance created frustrations and emotional tensions between them. Nurses praised the physicians for mostly being willing to talk to family members when asked to by the nurses, but they were frustrated that they had to spend a lot of time '*reeling them in*' (Thomas, ICU nurse FN 2) and waiting for them to come. Physicians praised the nurses for arranging family conferences, but could be frustrated when they rang at '*all hours of the day and night*' (Anna, intensivist FG 4) to ask them to speak to the family.

The distance between the clinicians also appeared in how they referred to each other. Although there was good cooperation between physicians from the patient's ward and the ICU physicians and nurses, clearly the strongest team feeling belonged to the ICU staff. The nurses spoke of ICU physicians as our physicians, whereas the ward physicians came from outside. Team feeling, and confidence, was strongest in relation to those one knew best. Some ICU staff, both nurses and physicians, said that ward physicians were too preoccupied with their own specialty and gave overly optimistic information to family members. Thea, an ICU nurse explained:

> If a surgeon talks to the family, he may say, "the operation went well", despite the patient's health remaining extremely poor.
>
> (Thea, ICU nurse, FG 6)

One surgeon (Carl, Dl 1) said that surgeons became caught up in the intensivists' decisions, even though they were principally responsible for the patient. He had also experienced situations where surgeons had to motivate ICU staff to make additional efforts, and relatives not to give up hope. Although the participants did not describe these situations explicitly as conflictual, they could cause frustration and emotional tensions, both inter- and intra-professionally.

Family care was described as rewarding and integral to the working day. Both physicians and nurses described feelings of satisfaction in helping the family. The nurses were especially close to the families' feelings and concerns, their hopes and their joy. They often got to know them well and strove to build a trustful relationship. However, it was important to ensure that their relationship with the family did not become personal; they needed to maintain a certain distance. If the relationship became too close, it could feel uncomfortable and too private. One nurse (Eva, FG. 3) talked about "*building a wall*" to protect herself. Maintaining distance could be difficult, especially in situations that most powerfully affected them. Very serious and critical situations, particularly those involving children, tore down one's defenses.

> I had a dying patient with a 12-year-old son. I dreaded him coming to visit. I had never met him before, and he was coming to say 'goodbye' to his mother. But I pulled myself together and it went surprisingly well. It was very nice. But you have no idea how you will react, because it does something to you when you have children the same age.
>
> (Christina, ICU nurse, FG 7)

Keeping a certain emotional distance from the family was seen as professional. One ICU physician (Eric, FG 5) spoke about a situation that had touched him "*right in the heart*," describing himself crying with the family members when the father died during his shift. The distance he usually maintained was gone and he felt as though he had '*lost his shield.*' Afterward, he wondered if the family had found him '*unprofessional*.' In several of the interviews, clinicians spoke about similar stories still affecting them deeply – they had tears in their eyes and a lump in their throat in speaking of these.

Several participants touched on the balance between closeness and distance, how their own vulnerability could come as a surprise to them, calling for reflection on their feelings and reactions and their position as a professional. Work pressure was considerable, and they had limited time to dwell on events strongly affecting them. Many clinicians, especially nurses, supported each other in odd moments, throughout the working day. Participants also mentioned talking to a particularly good friend or family member when their feelings weighed heavily on them.

The fieldwork showed how the clinicians' position in the room, where they stood and sat in relation to the family, also indicated their proximity to or distance from them. They could demonstrate closeness by standing at the bedside with the family, putting an arm around their shoulder, giving or receiving a hug. But they could create distance, by sitting behind the computer, avoiding eye contact, or standing far away from, or with their back to, family members. Family members also set limits as to how close health professionals could be. Whilst it might seem entirely natural to *one* to be given a hug, it could be completely rejected by another. Being rejected in this way could be very hurtful, especially in demanding situations where clinicians felt that they had worked hard and given a lot.

### Silent interprofessional work

*Silent interprofessional work* concerns the extent to which the ICU team members talked to each other and planned family care. Both fieldwork and interviews showed that this work was in many respects '*silent.*'

Even though clinicians included information about the patient's family in their handover, they spoke little to each other at a strategic or organizational level about family care:

> . . . there is remarkably little attention paid to that in the physicians' group, we speak about it very little. I don't know what the other physicians do because I do it pretty much my own way. [. . .] We

> don't discuss it much, and perhaps we don't reflect on it so much – at least not together, but on our own. So, there is certainly an unrealised potential.
>
> (Eric, senior intensivist, FG 5)

ounger physicians described having felt that they were '*thrown headfirst*' (Benny FG 6) into conversations with family members when they were inexperienced. Experience brought greater confidence, and over time one developed one's own approach.

Interprofessional debriefing was rarely conducted. However, ICU 4 offered weekly reflection meetings. This unit also had flexible visiting times and generally good facilities for the families. The head nurse was especially concerned about family-centered care and was a driving force in evolving a common "family culture." It was, however, difficult to get all the staff '*on board*' with this since culture change is a long-term project (FN, ICU 4).

The bedside rounds were the best opportunity for physician-nurse communication. These interprofessional dialogs were characterized by '*questions and answers*.' This was in contrast to communication in profession-specific meetings such as the nurses' shift reports and the physicians' pre-rounds comprising discussion and formal clinical talk. This interprofessional dialogue was affected by the way the round took place. In ICU 3, physicians and nurses sat side by side during the round. In other units, it took place either while the nurses were busy with patient-related tasks or when physicians approached the patient, conducted an examination, spoke to the nurse and left the room to write the prescription.

Apart from the rounds, physicians and nurses spoke when necessary, either face-to-face or on the telephone. However, one unit held interprofessional team meetings concerning patients who had been hospitalized seven days or more.

Although clinicians had good experience of interprofessional family meetings, several nurses recalled conferences that had gone badly or led to negative consequences:

> A patient died immediately after he came to intensive care. They phoned the family but did not mention the death over the phone. The ward physician knew the patient best and came to the ICU to speak to the family as soon as they arrived at the hospital. He thought, however, that they had already been told about the death and spoke to them accordingly. The patient's daughter reacted strongly to this. She was very angry. The nurse present described the situation as very unpleasant. She said that she and the physician had not spoken to each other before they went into the meeting. She had thought that the physician knew that the family had not been informed about the death.
>
> (FN, ICU 4)

The nurses mentioned situations where they had been surprised by what the physicians had said to the family and that they subsequently had to "correct a bad impression" (Thea, ICU nurse FG 1). They could be uncertain whether they had misunderstood the situation or wrongly informed the family. Even though the units had guidelines for '*conversations with adult relatives of intensive care patients*' in which a preparatory "pep-talk" within the ICU team was recommended, these were largely unknown and seldom followed. Another example of the organization's strategy for family care being '*silent*' came to light during the focus groups when the guidelines for visits by family members were discussed, revealing that many ICU physicians were largely unfamiliar with these rules. In ICU 3, with the most restrictive visiting times, neither physician nor nurses knew who had imposed the restrictions, or why.

### *A connecting link*

*A connecting link* refers to the way in which both nurses and family members have an essential role within the ICU team, creating continuity and good information flow.

The observations showed that the ICU team consisted of many clinicians working shifts and taking turns in being with, and taking responsibility for, patients. Family members were often the most stable and present '*facto*r' in the team as patients were often unable say how they were. The family supplemented the clinicians with information about the patient and helped sustain the flow of information from shift to shift. Family members held qualitative information that could often be lost when so many clinicians were involved over time. Family members' role as active participants within the ICU team was little remarked on in the interviews. The impression was given that they were seen as passive recipients of clinicians' information and concerns. It was uncommon for them to join bedside rounds.

Nurses had an important function as the ICU team's link between family members, physicians and themselves. They argued for the family's point of view and were mouthpieces for their wishes. This required both a sense of responsibility and time. The nurses conveyed messages and facilitated dialogue between family members and physicians. If the situation was acute, the family received more frequent information from the physicians than when it was stable. The nurses' function as a link during actual conversations with the family was described as importantly bridge-building:

> The days are, of course, busy [. . .]. If I'm rounding off and ending a difficult conversation, it takes a bit more time, not just in going back to the room with them (the family) and so on, but also finding a way to close the conversation, [. . .]. Then it's really helpful to have a nurse with me who can be a bridge between us and help in rounding off the conversation.
>
> (Siri, senior surgeon, II 1)

The physicians had great confidence in the nurses' assessment of family members' need for information. They explained that they, to a great extent, "*leaned on*" (Tom, intensivist, FG 5) them to say when the family needed to speak to the physician. If the physician took the initiative to talk to the family, it was often in an acute situation with major changes in the patient's treatment, or when there were results of medical tests or examinations.

During daytime, the intensivists were readily available in the unit, and often had ad hoc meetings with family members in the patient's room. However, it could be more difficult and

time-consuming to arrange family meetings in the evenings and to include busy ward physicians. Sometimes such attempts caused tensions between clinicians. Although the nurses praised the physicians for being readily available, they described situations where they had to "haul in" or "cover up" for physicians:

> Carrie, the ICU nurse, rings the surgeon and asks if he can inform the daughter of a patient in intensive care about a minor operation the patient had undergone the day before. The surgeon refuses because he spoke to the family pre-operatively. He doesn't see the necessity of providing more information.
>
> After this conversation with the surgeon, Carrie says wearily to the researcher: "That's how it is sometimes. Most would have rung, but not that one. Now, I'll have to smooth things over with the relatives since he won't speak to them."
>
> (FN, ICU 3)

In order to maintain the family's faith in the healthcare staff, the nurse hid her irritation and frustration from them. Without the support of an available doctor, nurses can feel abandoned, uncertain and stressed:

> . . . I often feel that it puts us in a tight spot. [. . .] those of us who are in the room and are left standing there with the relatives. The physician maybe doesn't have enough time or enough information to give them and so we have to start 'tracking down' another physician. It's a bit difficult for us to give information and so we must tell them just to wait.
>
> (Karen, ICU nurse, FG 3)

However, the coordination of family meetings could also be challenging for physicians, especially when nurses contacted them on duty when they had limited time to prepare themselves:

> An unprepared meeting is awful, I hate it. I think it's terribly sad when family members come in the evening and at night. They come from far away, and so the nurse rings at eight in the evening and says: "The family has arrived, and they would like some information". Often, I don't know the patient very well and so I have to 'dig' a little. It's so stupid if it comes from "left field" and I say something that someone else hasn't already said [. . .] That's what I think is worst, people coming in the evening to get information. It's not like when you have time to sit down to look at exactly where we've got to, and exactly what's been done and not done.
>
> (Tom, intensivist, FG 5)

The main challenge was to give consistent and useful information. Family conferences were time-consuming and could disrupt clinicians' workflow. They felt stressed and overstretched. Several physicians felt that family meetings should take place, wherever possible, during the day.

## Discussion

We have examined, from an insider's perspective, how physicians' and nurses' family care plays out, over time, in their daily work in the ICU. Interprofessional family care, conceptualized as '*solitary teamworking,*' is a form of contradictory cooperation that can work very well but also be lonely and emotionally challenging. The findings indicate the importance of examining previous family research, as the dynamics of interprofessional practice and family involvement in the ICU are largely absent from the literature (Reeves et al., 2015).

The study shows that family care is a balance between proximity and distance in relation to family members and colleagues, and to oneself as a clinician. Healthcare professionals can feel alone, uncertain, sad and rejected in meetings with family members and in relation to colleagues. They also experience frustration and emotional tensions in relation to the ICU management. Certain situations involving families strongly affect clinicians. They identify with them, and fear acting unprofessionally. This indicates that nurses' and physicians' vulnerabilities may require a certain emotional distance in family care. It is suggested that keeping a distance is a defense mechanism used when the family's distress becomes too overwhelming (Epp, 2012). Distancing oneself can trigger negative emotions and attitudes such as depersonalization, cynicism and detachment and is a significant risk factor for burnout, adversely affecting the quality of family-centered care (Epp, 2012; McAndrew et al., 2020).

A supportive atmosphere and good teamwork help clinicians meet emotional challenges (Epp, 2012; Rydenfält et al., 2018). Our study shows that experienced clinicians supported less experienced colleagues, praising them in particularly demanding situations. The participants, especially the nurses, often instigated "informal debriefing" during lunchbreaks, or in the corridor, where they supported, comforted and advised each other. Such individual approaches are recommended in addition to interprofessional team and system approaches (Costa & Moss, 2018). "*Knowing each other*" also increased the feeling of confidence and of being a team. ICU nurses and physicians clearly had a stronger team spirit among themselves than with the surgeons and internists they collaborated with. Helping families in difficult situations also motivated them.

Interprofessional ICU family care can be characterized as '*silent.*' Despite clinicians including information about the family in their handovers (Nygaard et al., 2020), they spoke little about strategic or organizational family care. With certain exceptions, there is little facilitation of interprofessional dialogue on family care. The ICU leadership's strategy seems vague and inexplicit, and clinicians' work with families seems based on individual preferences and experience-based approaches. The findings also suggest a lack of joint leadership for ICU physicians and nurses regarding family care.

ICU management should address family care more explicitly, establishing better procedures for providing venues for interprofessional discussion and planning of family care approaches. Interprofessional education can enhance attitudes, knowledge, skills and behavior for collaborative practice, leading to improvement in clinical practice (Reeves et al., 2016), including establishing the foundations of a supportive work environment that emphasizes addressing clinicians' emotions and psychological distress, thus attempting to lower the risk of burnout among ICU staff (Costa & Moss, 2018; Epp, 2012). Without an increased focus on, and better routines for, communication, there remains a substantial risk that nurses and physicians will communicate vague information to patients and their family, leaving them uncertain (Lind et al., 2012). The introduction of communication tools such as the "VALUE

TEAM template" (Curtis & White, 2008) to ensure respectful communication in the team and toward the family is recommended (Michalsen & Jensen, 2020). However, our study shows that implementation of these tools needs to be followed closely in a focused process over time, until they are an established part of ICU practice.

Despite increased focus on family-centered care, family members are not really considered as team members by clinicians (Olding et al., 2016; Paradis et al., 2014). Our study shows that family members have an essential role as a connecting link in the ICU team, irrespective of clinicians' awareness of this function. The fieldwork revealed that the family was a stable factor within the team, sharing not only their own knowledge but also decisions and communications from earlier shifts. Our findings demonstrate a more active and participatory messenger role than described in previous research (Olding et al., 2016). This is especially important, as families' interaction with the ICU team is not limited to a single incident, it lasts over time (Ervin et al., 2018; Reeves et al., 2015). The work of the ICU team can extend over days, weeks or months during which the team's physicians and nurses routinely come and go, but the family remains constant. This distinguishes the work of the ICU team from other healthcare teams such as resuscitation or trauma teams (Ervin et al., 2018).

Involving family members and including them in the ICU team has proved challenging in practice (Hetland et al., 2018; Olding et al., 2016; Rodriquez, 2015). Our study shows that family presence during shift reports and bedside rounds is far from common practice. Further, two of the ICUs had fixed, and relatively limited, visiting hours. According to Hetland et al. (2018), several factors influence nurses' assessments of the involvement of family members: clinical environment, family and patient characteristics and ICU culture. Although nurses are especially well-placed to involve families, it is difficult for them to shoulder alone the responsibility for this and to create a good team dynamic (McAndrew et al., 2020; Olding et al., 2016). Olding et al. (2016) point to nurses' limited authority in the ICU as a small part of a much larger and complex healthcare system with considerable medical authority. Our study clearly showed that although the nurses managed the work with the family, they were heavily dependent on successful cooperation with the physicians. Their family care was also influenced by the extent of the organization's facilitation of it, and by whether they had the support of the unit management. McAndrew et al. (2020) emphasize that an organizational culture supporting and prioritizing family care is a prerequisite for nurses' and physicians' engagement with families in ICU.

The findings in this study, in keeping with others (Alexanian et al., 2015; Curtis & Vincent, 2010; Reeves et al., 2015), are that the ICU team members spend most time on their own profession-specific duties. The metaphor of '*silos*' has been used to describe these parallel working environments in which different professions have limited awareness of each other's work and limited possibilities for communication and cooperation (Curtis & Vincent, 2010). According to Reeves et al. (2015), interaction between physicians and nurses can often be terse, with few possibilities for wider interprofessional discussion. Our study shows that the interprofessional dialogue consists more of 'question and answer' than of conversation and discussion. The nurses wanted to take part in physicians' discussions, and both physicians and nurses said that they needed to speak together more. Although the patient record is an important communication tool between clinicians, it contains little information about the family; such information had to be shared verbally (Nygaard et al., 2020). Information technology can hinder interprofessional communication and appeared to foster parallel work practices (Reeves et al., 2015).

Interaction between ICU team members is governed by different professional cultures, hierarchies within and between professions and the medical dominance of the working environment (Alexanian et al., 2015). In moments of clinical crisis, however, clinicians move from working in parallel to working interprofessionally as a team (Reeves et al., 2015). Our study shows that the ICU team's interprofessional family care is no exception. The nurses, working bedside and having daily contact with the family, often care for the family without physicians being involved. They spend much time '*alone*' with the family. Physicians have a more limited but essential role related to their medical responsibility for the patient. The study also shows that the different professional roles overlap and are mutually dependent. Bjurling-Sjöberg et al. (2017) describe the distribution of responsibility amongst the ICU team as '*balanced intertwined responsibility*' aimed at being prepared and flexible in a changing work environment shaped by many influences.

Previous studies (Fassier & Azoulay, 2010; Nathanson et al., 2011; O'Leary et al., 2010), showed that physicians rate the teamwork more highly than nurses do. Nurses can feel outside the decision-making process, and miss being more involved (Alexanian et al., 2015), as this study confirms, despite the participants mostly describing good physician-nurse cooperation. This highlights physicians' authority as responsible for treatment, and their formal decision-making power. Nurses, however, occupy a key position in daily family care, which includes responsibility for mediating contact between physician and family, and they also occupy a position of power. Family members depend on nurses to convey their needs and wishes. Nurses' role as a connecting link requires that they remain aware of their responsibility and of the family's needs, which physicians rely on them to do. This is necessary in an ICU setting where patients remain in acute care day and night, with potential rapid changes in their condition. The findings suggest that clinicians and families could have benefited from physicians and nurses planning times for family meeting better, especially regarding stabilized patients, which should improve continuity of family care, instead of inconsistent information and communication. Better planning, preferably with daily interprofessional family conferences would probably reduce emotional tension and frustration between nurses and physicians (Hamilton et al., 2020).

## Limitations

AMN, who conducted the field research, is an experienced ICU nurse. Her stance in the data analysis and construction of conceptual categories will have been influenced by her presence in, and closeness to, the ICUs where she was an

observer. However, observation and interviewing demand the capacity for reflection on, and awareness of, one's own preconceptions and prejudices, to enable new lines of approach and critical thinking. The other authors are experienced ICU nurses and/or researchers, able to contribute to nuancing the analysis.

Observation is the recommended data collection method to understand team dynamics of ICU clinicians (Reeves et al., 2019). When participant observation is included in grounded theory, it increases the trustworthiness of the study. Combining observation with interviews enabled the researcher to pose in-depth questions and discuss her observations. This combination also reveals interesting gaps between interview data and observation data. Remembering observed details and events in a noisy and constantly changing critical care environment can be difficult, although detailed field notes were taken during and after each shift.

## Conclusion

The study aim was to explore how interprofessional family care is reflected in ICU teams' daily work. With a constructivist grounded theory approach, '*solitary teamworking*' emerged as the core category explaining the contrasts in interprofessional family care; ICU physicians and nurses alternate between working alone and as a team. Family care is experienced as engaging and rewarding, but emotionally challenging, both in contact with the family and in cooperating with colleagues and management. The findings indicate that unit managers must facilitate a culture supporting and prioritizing family care, where family members are included as an active part of the ICU team and interprofessional dialogue is emphasized.

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