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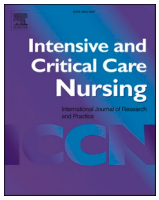

Research Article

Critical care nurses' experiences of working during the first phase of the COVID-19 pandemic – Applying the Person-centred Practice Framework

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ABSTRACT

Aim: The aim of the study was to deductively study person-centred care, based on critical care nurses' experiences during the first phase of the CoViD-19 pandemic.
Design: The study used a qualitative design.
Method: Data collection was conducted as individual interviews and was analysed with qualitative content analysis with a deductive approach.
Participants: Six critical care nurses working in a special CoViD-19 intensive care unit during the first phase of the pandemic participated.
Findings: The findings are presented within the four domains of person-centred practice: the prerequisites, the care environment, person-centred processes and person-centred outcomes. While the ambition and knowledge about how to work in accordance with person-centred practice were high, there were several obstacles to perform it.
Conclusion: We need to prepare ahead of time so that nurses have optimal organisational prerequisites to be able to work in accordance with person-centred practice, also during pandemics and other crisis, which means to be able to give nursing care in accordance with the ill person's needs and resources.

Implications for clinical practice

- Working with unknown colleagues and different equipment complicates safe intensive nursing care.
- Not being able to meet or talk to the patient's relatives makes it difficult to learn to know the critically ill patient as a person.
- Critical care nurses are struggling to maintain person-centered care despite lack of prerequisites and an unsupportive care environment. This desire and commitment can lead to increased moral stress, which needs to be identified by organisations.
- Possibilities for professional ethical reflections are suggested.

Background

In a short period, the COVID-19 pandemic has challenged healthcare systems and societies worldwide (Murthy et al., 2020). Millions of people have become critically ill and required care in intensive care units (ICUs) (Simpson and Robinson, 2020). ICUs have been described as 'the frontline of a war' against the disease (Selman et al., 2020). Critical care nurses (CCNs) in this frontline were and are still engaging with some of the most challenging ethical issues of our time (Gallagher, 2020); these include limited resources (Lai et al., 2020; Vincent and

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Creteur, 2020), a lack of personal protective equipment (PPE) and professionals' obligations to care for patients (Brown, 2020). The CCNs experienced a new and challenging work scenario inside intensive care units (ICUs) (Phua et al., 2020) in addition to dramatically increased workloads (Fernández-Castillo et al., 2021; Lucchini et al., 2020). At the same time, they were expected to provide person-centred care (PCC) with quality, as they had done before the pandemic.

PCC has become a key to quality care in many developed countries (World Health Organisation (WHO), 2015), and organisations and healthcare systems worldwide are implementing PCC models as a means to improving their healthcare systems performance (Santana et al., 2018). The Person-centred Nursing Framework has become a recognised model of nursing (McCormack and McCance, 2016) and was developed largely within that context (McCormack and McCance, 2006). To situate this framework within a broader context, the Person-centred Practice Framework has been developed and is applicable to a wide range of healthcare workers (McCormack and McCance, 2016). The essence of nursing depicted within the framework reflects the ideals of humanistic caring, where there is a moral component and practice has, at its foundation, a therapeutic intent (McCormack and McCance, 2016). The definition of nursing used within the framework is as follows:

> *"Person-centred nursing is an approach to practice established through the formation and fostering of therapeutic relationships between all care providers, service users and others significant to them in their lives. It is underpinned by values of respect for persons, individual right to self-determination, mutual respect and understanding. It is enabled by cultures of empowerment that foster continuous approaches to practice development".* (McCormack and McCance, 2016, page 41).

The Person-centred Practice Framework has four domains: The *prerequisites* focus on the attributes of staff and are considered the key building blocks in the development of healthcare professionals who can deliver effective PCC; The *care environment* focuses on the context in which care is delivered and is recognised as having a significant impact on clinical and team effectiveness; *Person-centred processes* focus on delivering care through a range of activities that operationalise person-centred practice; and finally, *person-centred outcomes* are the central construct within the framework and represent the results expected from effective person-centred practices (McCormack and McCance, 2016).

The notion of PCC might be especially challenging in an ICU's technological environment (Andersson, 2021) where nursing care is described as task-oriented and based mainly on the patient's medical needs (Falk et al., 2019). Even when CCNs want to attend to patients at a personal level, technology has sometimes appeared to be more important than the patients it is meant to serve (Crilly et al., 2019). Cederwall et al. (2018) conducted a deductive study using Ekman's et al. (2011) theoretical framework of person-centred nursing based on the routines to establish PCC in a secondary analysis of qualitative data collected to explore CCNs' strategies in managing patients experiencing prolonged weaning (Cederwall et al., 2014). They found evidence of all three person-centred routines such as initiating, working and safeguarding the partnership by CCNs while providing care to patients experiencing prolonged weaning. However, PCC was limited when there were insufficient nursing resources and poor inter-professional team collaboration. Another study by Jobe et al. (2020) in the context of health care and social service using the Person-centred Practice Framework (McCormack and McCance, 2016) showed that everyone participating in the collaborative planning at the macro- as well as the micro-level needs to apply a person-centred approach.

During the current COVID-19 pandemic, several of the key determinants of PCC were, and continue to be, threatened as a result of health service responses, infection-control measures, visiting restrictions, social distancing and isolation (Edvardsson et al., 2020). Backing away from a person-centred approach to treatment and nursing care erodes trust and will cause more problems than it will solve. It risks losing recent gains made in higher-quality, safer, more appropriate, and more effective and efficient nursing care (Coulter and Richards, 2020). The critical-care community has extensive experience treating severe acute respiratory infections every year, often with uncertain origins. The foundation for the care of severely ill patients with COVID-19 must be grounded in this evidence base and, in parallel, must ensure that learning from each patient is maximised to help those who will follow (Murthy et al., 2020).

During this pandemic, relationships worldwide had to be limited and/or reinvented to protect lives, with different countries using various processes, priorities and actions (Edvardsson et al., 2020). PCC has widespread support in policy documents, and different factors have the potential to support or restrict CCNs' possibilities of providing nursing care according to the PCC model. There is a lack of knowledge about how PCC has functioned during the COVID-19 pandemic. By studying CCNs' experiences and mapping those experiences in the Person-centred Practice Framework (McCormack and McCance, 2016), further knowledge may be added about PCC under extraordinary circumstances, and modifiable factors that may influence PCC outcomes in ICU practice may be identified. Therefore, the aim of the present study was to deductively investigate person-centred care based on critical care nurses' experiences during the first phase of the COVID-19 pandemic.

Methods

Design

The study used a qualitative design and followed the consolidated criteria for reporting qualitative research (COREQ) (Tong et al., 2007).

Setting

The hospitals in the northern region in Sweden responded to the pandemic by reorganising their facilities, introducing a restricted visitation policy, and establishing a special COVID-19 ICU, to provide intensive care for severely ill patients with COVID-19 diagnosis.

Respondents

The respondents were CCNs working in the included COVID-19 ICU and met the following inclusion criteria: employed as a registered nurse and having a post-graduate education in intensive care on an advanced level (Marshall et al., 2017). Registered nurses with another post-graduated education were excluded.

CCNs were either employed at the specific COVID-19 ICU or had transferred from other ICUs in the region and were identified by nurse manager. They passed on the names of possible respondents (n = 60) to the researchers and the researchers contacted the respondents via letter including study information and request for participation. Six CCNs agreed to participate; their demographic data are presented in Table 1.

Table 1
Demographic data of the respondents.

Respondent	Sex	Age	Years of experience of ICU care	Employment
1	Female	55	20	Transferred from other ICU in the region
2	Female	41	1	Transferred from other ICU in the region
3	Female	39	6	The ICU that became covid-19 ICU
4	Female	38	13	Transferred from other ICU in the region
5	Male	50	20	Transferred from other ICU in the region
6	Female	60	35	The ICU that became covid-19 ICU

The respondents' mean age was 48 years, and four of the six respondents had more than 10 years of experience in ICU nursing care.

Ethical approval

The ethical committee in Sweden approved the study (Dnr 2020-02805). The head of the ICU departments gave permission to conduct the study. Respondents were given both written and verbal information about the study. Participation was voluntary, and the respondents could withdraw from the study at any time without giving any reason or explanation.

Data collection

Semi-structured interviews were conducted by one researcher (ÅE) and took place in October and November of 2020. Data were collected using individual telephone interviews, which ranged from 45 to 68 minutes; these were audio-recorded and transcribed verbatim. The respondents were asked to describe their experiences of working in a COVID-19 ICU in the first phase of the pandemic. To elicit further information and for clarification where needed, the researcher asked follow-up questions such as: What happened then? How did you feel? Can you give an example?

Data analysis

We analysed the interviews using qualitative content analysis according to Elo and Kyngäs (2008), who provide a description of deductive content analysis. The authors read the interviews, in Swedish, several times to grasp their meanings as a whole and used the Person-centred Practice Framework (McCormack and McCance, 2016) as the explanatory background guiding the interpretation and understanding of the data material. Meaning units belonging to the four domains (prerequisites, care environment, person-centred processes and person-centred outcomes) of the framework were extracted and coded under the corresponding domains. Then the text was translated into English.

Findings

The findings describe the CCNs' experiences during the first phase of the COVID-19 pandemic. To present them (see Table 2), we used the four domains from the Person-centred Practice Framework (McCormack and McCance, 2016).

Prerequisites

The CCNs never hesitated to go to the COVID-19 ICU to work and provide care to patients with coronavirus, even though they described receiving minimal information, training and knowledge about the protective equipment. CCNs felt unprepared and had no time to think about what would be required of them. There was fear of the virus because it behaved in a different way, and to a limited extent, they experienced fear of becoming infected or infecting others.

CCNs, nurses with other specialties and general nurses came together from different parts of the county to work in the COVID-19 ICU, and together they aimed to complete their mission. CCNs employed in a COVID-19 ICU described this engagement from other nurses as impressive; they welcomed opportunities to work with colleagues they did not know before the crisis. However, the CCNs experienced this also as a concern because they were working with colleagues without knowing who they were or what their skills and competencies were.

> *"Of course, you wanted to avoid it, but at the same time, it felt like this is the mission we have and now we simply have to do it."* (Respondent 2)

Table 2
Analysis matrix for CCNs' experiences during the first phase of the COVID-19 pandemic based on the Person-centred Practice Framework (McCormack and McCance, 2016).

Domain	Attributes	Experiences
Prerequisites	Professionally competent Developed interpersonal skills Commitment to the job Clarity of beliefs and values Having self-knowledge	Never hesitated to go to work Felt unprepared Fear of being infected or infecting others, to a limited extent Fear of COVID-19 virus Worked with unfamiliar colleagues, not knowing them or their skills
Care environment	Appropriate skill mix Shared decision-making system Effective staff relationships Power sharing Physical environment Supportive organizational systems Potential for innovation and risk-taking	Went direct to work without introductions Nurse managers invisible and unsupportive Low degree of participation in work conditions Increased strain caused by the organization Importance of having the right competence around the patients Constant need for ICU nurses Commuting distance took a lot of energy Physical environment chaotic at the beginning
Person-centred processes	Working with patients' beliefs and values Shared decision-making Engaging authentically Being sympathetically present Providing holistic care	Difficult to communicate because of protective equipment Good at prioritizing nursing care Nursing care impersonal and based on routines
Person-centred outcomes	Good care experience Involvement in care Feeling of well-being Existence of a healthful culture	Patients objectified All the focus was on the COVID-19 diagnosis Less involvement with patients' care due to absence of contact with relatives

> *"It was like stepping into a nightmare I would say. And just that I went there myself. I never think I've ever felt so lonely actually."* (Respondent 4)

Care environment

CCNs described being ordered by the organisation to work in the COVID-19 ICU. Arriving CCNs were immediately put to work with no introduction to the physical environment or any kind of orientation or welcome. They experienced a low degree of participation in their own work situation, and they described the nurse managers as invisible and unsupportive, as they did not see them in the COVID-19 ICU. They received support from colleagues, but some felt that, generally, support even between colleagues was minimal.

The work shifts were extended by a number of hours compared to regular shifts. There were CCNs who experienced this positively because they got longer leave times and, thus, greater opportunities for recovery. At the same time, as the work shifts were longer, more time was spent recovering, and CCNs described not being able to get anything accomplished during their leave times because any free time was spent recovering so that they would have the strength for their next work shift.

The organisation itself also contributed to increased strain and created unnecessary conflicts that nurse managers needed to handle. CCNs worried about whether they would get their summer vacation and irritated about the relatively low financial compensation they received for their professional role in a hazardous pandemic and the Human Resource department's demand for administrative tasks. CCNs described

how these tasks took additional energy from them and had an impact on the nursing care patients received.

It was important to have the right skills and competencies for caring for the patients at all times, and it was the CCNs' responsibility to introduce and supervise new colleagues. In some cases, this responsibility felt too heavy to bear. Admission of new patients to the COVID-19 ICU was high, and the need for CCNs was constant. A CCN described how she became responsible for scheduling and that she constantly disappointed both colleagues and the organisation by not being able to meet the needs and requirements of the conditions during the crisis. She described a feeling of vulnerability by being responsible for staffing, a duty that she did not want and had not sought.

> *"Yes, that was it, and it could even be times when you went in and there were three patients, and then you had people who were less experienced and did not work at (an) ICU who said "I do not take any responsibility; you must be responsible for all three". And it was just the situation; it was not the time to discuss, no. You got to ask "What can you do? Do you know what a probe is? Can you give medicine in a tube?" You had to start like that with some. Then you had to teach them what you could then, this is how you do with these drugs, these drugs seems to be in here, these seem not to exist, and you did not know yourself because next time you were in another room and then you did not find there, so it was like learning by doing each session…I could not do as good a job as I usually do."* (Respondent 1)

The organisation of the COVID-19 ICU resulted in those CCNs who were employed at another ICU in the county having longer commuting distances, which took more of their limited energy. Sometimes they needed to sleep over, and it was not clear whether the organisation had arranged accommodation for these nurses when they arrived at the beginning of their work shift. Therefore, they had to look for accommodation when their night shift ended. CCNs who were working at their regular workplaces described that commuting must have been strenuous, and they were happy they did not have to do it.

At the beginning of the COVID-19 outbreak, CCNs described the physical environment as "*chaotic*" and "*like a nightmare*". There were cables and wires everywhere, unfamiliar equipment, and infusion pumps programmed in different units of measure. Old ventilators were being used, and few of the CCNs knew how to handle them; the limited resources of medicines and materials were a constant concern. However, the CCNs described that the staff were creative and solved problems together. Over time, the physical environment improved, and a CCN described it as different, but that it worked.

> *"All dialysis machines must be running… when they would have materials for a variety that I was not used to and I worked in the corridor…. It was important that I got to know exactly what I was going to pick out."* (Respondent 6)

Patients were often placed in the prone position for care, and together with the physical environment, this made it more difficult to provide nursing care. CCNs described a lack of water available in patients' rooms, which affected the patients' personal hygiene. At bedside, CCNs wore protective equipment and were not allowed to leave the patient's room; in some cases, this gave them a feeling of confinement. Other nurses assisted the CCNs at bedside with material, equipment and medicines. However, this organisation of medicine management created concerns among them because the medicine was in syringe sizes and/or labeled with units not normally used. One CCN described that another CCN hoped that the medicine was correctly mixed; this situation resulted in them feeling that they were taking chances when medicines were given to patients.

> *"This was an extreme situation, but it is not patient-safe in any way. We had three patients with three different ventilators and three different models of syringe pumps with different settings. It could be very messy; you really had to concentrate all the time."* (Respondent 5)

Person-centred processes

Providing nursing care to patients with COVID-19 was challenging in many ways. CCNs experienced that the protective equipment affected the provision of nursing care. Consultations with physicians were reduced because it would take too long for the physicians to put on their protective equipment. During rounds, CCNs mostly reported patients' vital parameters, and other issues concerning patients were avoided because the protective masks acted as a barrier to communication.

CCNs developed their ability to prioritise nursing care, and some experienced that providing nursing care was not difficult. Nursing care was standardised, and CCNs described the standardisation as positive, to some extent. However, other CCNs experienced that the holistic approach to the care of patients was lacking and that nursing became routine and impersonal. They compared it to working in a factory because all of the patients were cared for in the same way. *"There is no point to think it is hard all the time; you have to be pragmatic. You make your priorities, and then you have to work on (them)."* (Respondent 3)

Person-centred outcomes

Because of the stringent visiting restrictions required to prevent the spread of the virus, CCNs had no contact with relatives. This resulted in their inability to gain any knowledge about who each patient was as a person from his or her relatives. Telephone contact with the patients' relatives was handled primarily by the physicians outside the ICU something that the CCNs usually handled. Patients became bodies, resulting in less involvement with them. In addition, while the patients in many cases had comorbidities, diseases other than COVID-19 were largely ignored, and CCNs described patients as having become COVID-19 patients.

> *"First, it was the total de-identification of the patient. There was a common thread between these patients; they were "COVID patients" but many of them had something more. Many had heart failure and other diseases, but everyone became a COVID patient. The other thing that I thought was perhaps the worst was the absence of relatives. These relatives who previously gave an identity to the patient and who were almost always at the ICU. You get to know he, the patient, likes to fish; he likes to do more than one thing. It is a person, when you talk to relatives, and then you could almost talk to the patient as if "yes, now it's starting to look like it would be good fishing weather today". This totally disappeared! Exactly that they did not have relatives and I missed them… Just a lot of oxygen and abdominal positions and routines and so on… this is something that many people can do, but being good at intensive care nursing is so much more than that."* (Respondent 5)

Discussion

Despite inadequate preparation, the CCNs never hesitated to provide care to COVID-19 patients, and their attitudes about working with new colleagues were positive. At the same time, they described feelings of insecurity when working with colleagues whose skills and competencies they did not know. PCC requires inter-professional collaboration (McCormack and McCance, 2016), and Cederwall et al. (2014) revealed that poor inter-professional team collaboration has the potential to impair patients' experiences in prolonged ventilator weaning.

Şanlıtürk (2021) found that CCNs in Turkey had moderate levels of occupational stress during the COVID-19 pandemic. Inadequate salaries, heavy workloads, risk of infection, lack of protective equipment, worrying about passing the virus to family members, worsening clinical conditions of patients and extended working hours were examples of factors of occupational stress. Heesakkers et al. (2021) studied the well-being of Dutch CCNs, also during the COVID-19 pandemic, and found that the first coronavirus surge had a highly significant impact on the

mental well-being of CCNs, with many at risk of dropping out and jeopardising the continuity of care. They suggested that effort should be made to optimise working conditions, including enabling nurses to 'recharge their batteries' and decreasing workloads to guarantee optimal nursing care (Heesakkers et al., 2021). These are also prerequisites for performing PCC (McCormack and McCance, 2016).

CCNs experienced a low degree of participation in their own work situations and considered nurse management as invisible, which highlights the importance of present nurse management. The care environment has the potential to support or to restrict (Moore et al., 2017) CCNs' possibilities to successfully provide nursing care according to PCC and has an impact on the care experience and on patient outcomes. (McCormack and McCance, 2016). Based on the characteristics of the Person-centred Practice Framework (McCormack and McCance, 2016), these experiences reported by CCNs might be seen as barriers and are examples of how structures at the meso-level (Smith et al., 2019; Moore et al., 2017) might have an impact on the operationalisation of PCC.

Increased workloads and stressful situations with interruptions increase the risks and the severity of medication errors (Westbrook et al., 2010) as well as the likelihood of patient mortality (Aiken et al., 2014). In the present study, CCNs expressed concerns about their workloads, medicine management and communication difficulties due to PPE. According to Chapuis et al. (2019), these are examples of situations where adverse medical events are more likely to occur (Chapuis et al., 2019). Furthermore, Liu et al. (2018) showed that increased workloads are associated with inadequate nursing care, nurse burnout and reduced patient safety.

Previous research (Jarrar et al., 2019) revealed that patient-centred care can moderate the negative impact of staff's shift length on patient-safety outcomes, where shorter working time is better safety outcomes. However, patient-centred care and PCC are not the same. As a theory, PCC is almost absent in the research literature on intensive care, while the use of patient-centred care is more common (Jakimowicz and Perry, 2015; Slatore et al., 2012). Central for PCC in contrast to patient-centred care is that PCC does not objectify the person as a disease and lets the patient take responsibility for and control of her or his own care (Ekman et al., 2011). Another difference between patient-centred care and PCC is that the goal for patient-centred care is a functional life, while the goal of PCC is a meaningful life (Håkansson Eklund et al., 2019). In addition, patient-centred care departs from a purely biomedical perspective, whereas PCC departs from a humanistic and holistic perspective (Leplege et al., 2007). Further studies investigating patient-safety outcomes in relation to PCC are needed.

CCNs described that the protective equipment affected the provision of nursing care and protective masks acted as a barrier to communication. The focus of physical care seems to be difficult to integrate with psychosocial and nursing care when interacting with patients in these circumstances (van Belle et al., 2020). The lack of communication accounts for a significant portion of the contributing factors in healthcare injuries, and communication problems are more likely to occur when information needs to be transferred between different groups during intensive care (Thomas and MacDonald, 2016). Ball et al. (2014) showed that most of the nearly 3000 registered nurses who participated in their study were unable to perform some elements of nursing care because they were too busy; comforting and talking with patients was found to be the most important aspect of nursing care that was missed. In supporting PCC, these seemingly dispensable aspects of care have significant impact on the patient, his or her family and on the staff (McCormack and McCance, 2016).

CCNs developed their ability to prioritise nursing care, but they described this as lacking a holistic view of the patient and that nursing care became routine and impersonal. When nurses and other healthcare personnel cannot fulfil their moral obligation to a patient, such as delivering optimal care, or when they fail to pursue what they believe to be the correct course of action because of forces that are beyond their control, they experience moral distress and ethical dilemmas (Mehlis et al., 2018). Moral distress can be described as the negative experience of psychological imbalance related to a moral dilemma (Morley et al., 2019). The rapid changes guidelines during the pandemic increased stress levels among CCNs, a group of professionals who are under pressure in normal times (Fumis et al., 2017).

CCNs had no contact with patients' relatives due to visiting restrictions. This resulted in difficulties to obtain knowledge about who the patient was as a person. Part of CCNs' work is to form relationships so the patient feels safe and the relatives comfortable knowing that their loved one is in the care of skilled, caring CCNs (Boulton et al., 2021; McCormack and McCance, 2016). Similar to the findings of Maaskant et al. (2021), the CCNs reported that they missed the presence of the patients' relatives and that this made it difficult to relate to the patient as a person (Boulton et al., 2021).

Knowledge of the patient's life story and a focus on his or her needs and preferences are important pillars of PCC (McCormack and McCance, 2016). The presence of family members is particularly important for patients unable to communicate for themselves (Creutzfeldt et al., 2021; Kotfis et al., 2020) and plays an important role in delirium management (Kotfis et al., 2020; McKenzie and Joy, 2020). Establishing and maintaining PCC might be challenging for CCNs because of the imposed heavy workload and difficult clinical challenges posed by the COVID-19 pandemic (Kotfis et al., 2020). PCC's key attributes of quality care (Beattie et al., 2012; Hanefeld et al., 2017; WHO, 2015) are underpinned by values of respect for people, individual rights to self-determination, mutual respect and understanding (McCormack and McCance, 2016). The quotation *'While medicine is important—humanity must come first'* by a daughter whose mother was receiving care in an ICU (Meeks, 2021) illustrates the importance of PCC in ICUs during the first phase of the pandemic.

Limitations

One limitation is the small sample of six CCNs who were interviewed, although the number of interviews required is the number needed to answer the aim of the study. In qualitative research the goal is not to generalise the findings; instead, the findings can be transferred to similar situations if they are recontextualised (Lincoln and Guba, 1985). The interviews were rich in content and described similar experiences, thereby creating a pattern that the authors found adequate to serve as a basis for the findings. The small number of participants can, therefore, also be considered a strength as it provided an opportunity to gain personal and thorough knowledge of those participating in the study (Brinkmann and Kvale, 2018). The interviews were conducted in Swedish, then analysed and translated into English. Although the authors have worked to ensure the correct translation with help of professional editors in English, there still is small risk that this process could have affected the findings. The CCNs were not asked questions about PCC because the aim was not to explore an intervention or an established PCC policy. Instead, the study sought to identify and map whether the domains of the Person-centred Practice Framework by McCormack and McCance (2016) were present in the ICU during the first phase of the COVID-19 pandemic. By using deductive content analysis, the authors might have been more likely to find evidence that is supportive rather than unsupportive of a theory (Hsieh and Shannon, 2005). However, after the first author (MA) coded the data, the entire research team discussed the codes under the corresponding domains.

Conclusion

In conclusion, the CCNs' knowledge about and intentions to work in accordance with PCC are high. There are descriptions about their experiences of all four domains: the prerequisites, the care environment, person-centred processes and person-centred outcomes. Yet, while the CCNs do their best, their prerequisites for working in accordance with PCC are limited. Not knowing the patient as a person or one's colleagues,

and being unfamiliar with the organisation, the environment and/or the equipment have all been obstacles for working in accordance with PCC during the COVID-19 pandemic. There is a need for further investigations of the effects that restrictive visitation might have on patients and their relatives, as well as for strategies for involving family members in patients' care when visiting restrictions are necessary. There is also a need for research about how to best introduce staff during special and different circumstances such as a pandemic. Reflections about given care are other suggestions for improving prerequisites for PCC. Notable is that these interviews took place during the first phase of the COVID-19 pandemic, an event for which very few people were prepared. To be able to work in accordance with PCC during a pandemic or other crisis, we need to prepare ahead of time so that CCNs have optimal organisational prerequisites so that they can focus on taking care of critically ill patients.

Author contribution

Design MA, ÅE, AN, Data collection ÅE, Data analysis MA, ÅE, AN, Preparing the manuscript MA, ÅE, AN. Revising the manuscript ÅE, MA.

Ethical approval

The ethical committee in Sweden approved the study (Dnr 2020-02805).

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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