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Nurses' Clinical Decision-Making in a Changed COVID-19 Work Environment: A Focus Group Study

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Abstract

This study aims to explore how a changed COVID-19 work environment influences nurses' clinical decision-making. Data were collected via three focus groups totaling 14 nurses working in COVID-19 pandemic wards at a Danish university hospital. The factors influencing decision-making are described in three themes; navigating in a COVID-19 dominated context, recognizing the importance of collegial fellowship, and the complexities of feeling competent. A strong joint commitment among the nurses to manage critical situations fostered a culture of knowledge-sharing and drawing on colleagues' competencies in clinical decision-making. It is important for nurse leaders to consider multiple factors when preparing nurses not only to work in changing work environments, but also when nurses are asked to work in environments and specialties that deviate from their usual routines.

Keywords

clinical decision-making, work environment, COVID-19, pandemic, nursing, hospital, Denmark

Introduction

Nurses constitute the largest workforce within healthcare systems globally and are pivotal to any coordinated response to public health emergencies and disasters (Johnstone & Turale, 2014). The COVID-19 pandemic has required a high level of preparedness, commitment, and clinical expertise from both nurses and other health professionals (Fernandez et al., 2020; Liu et al., 2020). As a result of a rising number of patients in need of critical care, nurses are often relocated to pandemic wards that are outside their field of expertise (Liu et al., 2020; Shechter et al., 2020). A sudden shift in work environment with different working routines combined with caring for patients with unfamiliar diagnoses, requirements, and expectations may influence nurses' clinical decision-making and ultimately patient care (Nielsen & Dieperink, 2020). Therefore, there is a need to explore how a sudden change in work environment influences nurses' clinical decision-making.

Background

Nurses acknowledge that they have an obligation to work during the COVID-19 pandemic; however, they have concerns about how working during the pandemic impacts both themselves and their families (Cai et al., 2020; Fernandez et al., 2020). Working during the pandemic may entail psychological distress caused by concerns about transmitting COVID-19 to family and friends, feeling a lack of control and uncertainty (Shechter et al., 2020), and concerns about learning new procedures in a short amount of time (Liu et al., 2020). Some nurses find the work meaningful and valuable (Zhang et al., 2020), whereas others feel inadequately prepared to work during pandemics or other disasters (Labrague et al., 2018). The latter feeling is often related to concerns that their own competencies are inadequate and fears that they will make mistakes and put patients at risk (Labrague et al., 2018; Nielsen & Dieperink, 2020).

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During the COVID-19 outbreak, nurses have been relocated to pandemic wards within hospitals on very short notice and under unusual and hectic circumstances (Nielsen & Dieperink, 2020). In Denmark, nurses have been appointed to or voluntarily relocated to the specialized pandemic wards, often within days of being asked. The nurses working in these wards are from various medical specialties and departments; their diverse routines and different means of communication can be challenging (Liu et al., 2020). However, nurses may also adapt and find the mutual support and diverse competencies of staff members inspiring and motivating (Johansen & O'Brien, 2016; Mo et al., 2020). Being relocated to pandemic wards requires nurses to make clinical decisions within an unfamiliar field using unknown tasks, which can be stressful (Fernandez et al., 2020; Seale et al., 2009). The decisions nurses make ultimately influence patient care, patient safety, and patient outcomes (Johansen & O'Brien, 2016). However, personal stress, external pressure, and the severity of patients' illnesses may negatively influence nurses' decision-making (Groombridge et al., 2019).

Clinical decision-making applies to the process of making a choice between options regarding a course of action (Higgs et al., 2018). Health professionals are required to make decisions with multiple foci in dynamic contexts using a diverse knowledge base with multiple variables and individuals (Higgs et al., 2018). Decision-making is a complex and contextually dependent process—the factors influencing decisions are related to three key areas: the attributes and the nature of the task (e.g., importance, urgency, and familiarity), the features of the decision-maker (e.g., cognitive and emotional capabilities), and the context in which the decision takes place (e.g., organizational and environmental dimensions; Higgs et al., 2018). Lack of familiarity and uncertainty can slow nurses' decision-making process (Bucknall, 2003), whereas familiarity and experience from similar situations can increase the cognitive resources available for collecting cues and interpreting data. This results in more informed decision-making (Cranley et al., 2009; Johansen & O'Brien, 2016) and provides a source of confidence that further supports decision-making (Nibbelink & Carrington, 2019). In instances of contextual change and uncertainty, psychological support, education, and support from qualified colleagues have shown to be highly valuable for decision-making (Gan et al., 2020; Nibbelink & Carrington, 2019).

Nurses working in pandemic wards may encounter challenges in all three key areas of decision-making, as they are often unfamiliar with the medical specialty, emotionally concerned for the situation, and must maneuver within changed and new contexts. Although there is a growing body of research on nurses' perceptions of working during the COVID-19 pandemic, there is a lack of knowledge about how a relocation influences nurses' clinical decision-making. Therefore, the aim of this study was to explore how a changed work environment influences nurses' clinical decision-making.

Methods

Focus groups (FG) were used to generate data on nurses' experiences of working in COVID-19 pandemic wards and how it influenced their clinical decision-making. FGs were chosen to explore multiple experiences including similarities and differences in nurses' experiences. FGs allow for data to be generated from interactions among informants in groups, where they stimulate and challenge experiences, perceptions, and beliefs (Halkier, 2010; Morgan, 1997). The social gathering enables the participants to comment, ask questions of each other, and eventually re-evaluate their answers (Halkier, 2010; Morgan, 1997). Examples of how interactions influenced the findings are presented in the result section. The study followed the consolidated criteria for reporting qualitative research (Tong et al., 2007).

Settings

The study was conducted at a highly specialized university hospital. The participants came from three newly established pandemic wards specialized in COVID-19 at the university hospital during the first COVID-19 outbreak in March 2020 in Denmark. The wards included a test and observation ward with 20 beds, a bedside ward with 25 beds, and an intensive care ward with 25 beds. The number of patients at the wards varied during the period. The wards were established in old wards that had been re-opened and other hospital settings that were re-constructed and adjusted to serve COVID-19 patients. The wards were new to all the nurses.

Participants

Fourteen Danish nurses working in three specialized COVID-19 pandemic wards at a university hospital participated in three FGs. The participants were all white/Caucasian female ranging in age from 26 to 60 years and as minimum all had a generalist nursing education at bachelor level. They had 1 to 28 years of experience as nurses, came from a variety of specialties (medical, surgical, intensive care, anesthesia, and outpatient clinics), and had diverse additional education backgrounds (Table 1). Half of the nurses had voluntarily relocated from their specialty at the university hospital to one of the pandemic wards, whereas the other half had been appointed by their nurse leaders or had been relocated due to organizational changes in which their usual wards were placed under lockdowns. The nurses worked within their usual terms of employment. The nurses were notified anywhere from a few days up to a week before they were relocated. Most of the nurses were given a 1-day introductory course on caring for COVID-19 patients before starting to work in the pandemic wards.

The participants were recruited through nurse leaders at the pandemic wards who were informed about the study. The leaders forwarded an e-mail with information and a request to

Table 1. Participant Characteristics.

ID	Years of experience	Education (ECTS)
A	10	Bachelor of Nursing Science (210 ECTS) and Diploma in Acute Care and Pain Management (25 ECTS)
B	20	Bachelor of Nursing Science (210 ECTS), Diploma in Intensive Care (90 ECTS), and Diploma in Clinical Supervision (10 ECTS)
C	15	Bachelor of Nursing Science (210 ECTS)
D	11	Bachelor of Nursing Science (210 ECTS)
E	28	Bachelor of Nursing Science (210 ECTS) and Master of Clinical Nursing (60 ECTS)
F	6	Bachelor of Nursing Science (210 ECTS)
G	1	Bachelor of Nursing Science (210 ECTS)
H	6	Bachelor of Nursing Science (210 ECTS)
I	21	Bachelor of Nursing Science (210 ECTS) and Diploma in Anesthesia (90 ECTS)
J	18	Bachelor of Nursing Science (210 ECTS), Diploma in Anesthesia, and Diploma in Intensive Care (90 ECTS)
K	17	Bachelor of Nursing Science (210 ECTS), Diploma in Anesthesia, and Diploma in Intensive Care (90 ECTS)
L	14	Bachelor of Nursing Science (210 ECTS), Diploma in Anesthesia, and Diploma in Intensive Care (90 ECTS)
M	28	Bachelor of Nursing Science (210 ECTS)
N	13	Bachelor of Nursing Science (210 ECTS)

Note. ECTS = European Credit Transfer and Accumulation System where 60 ECTS credits are the equivalent of a full year of studies.

Table 2. Focus Group Interview Guide.

Topic	Central questions
New working context	• Can you tell us about your experiences of working in a pandemic ward? • Can you tell us about how you got to work in the pandemic ward? • Can you tell us about what it has been like to provide nursing care to patients in a new context? • How did you experience working in another context than usual?
Nursing care to COVID-19 patients (including clinical decision-making)	• Can you tell us about if and how you felt prepared to provide nursing for patients in the pandemic wards? • How do you experience the situations' influence on clinical decisions regarding patientcare and treatment? • Can you tell us how you involved patients in care and treatment in the pandemic wards? • What thoughts did you have on involving patients? • Can you tell us about the availability of knowledge, for example, guidelines and other relevant knowledge?
Colleagues/collaboration	• Can you tell us about how you experienced being a part of a new employee group in this period? • Can you tell us about your thoughts on providing nursing care with a new group of colleagues? • How did you experience the possibilities for collegial sparring?
Other	• Is there anything else regarding patientcare in pandemic wards you would like to share?

participate to nurses working in the wards. Initially, 10 nurses volunteered, eventually 8 nurses participated in the first two interviews. Following the second FG another call for informants was sent and six nurses volunteered for the third FG. After the third focus group, no additional participants were sought as the purpose of our study was to gain insight to various experiences and not to reach consensus in experiences from nurses who had been relocated to pandemic wards. The interviewers were both nurses and researchers and some of the participants were familiar to the interviewers as they worked in the same hospital. However, they were not employed in the same department and the interviewers were impartial as to the participants' employment.

Data Collection

Data were collected in June 2020. The three FGs—FG1 ($n=3$), FG2 ($n=5$), and FG3 ($n=6$) were conducted by the first and last author and the participants in each FG were

mixed across the wards. One author moderated the FGs and initiated and guided the discussions using a topic guide, the other author primarily observed the discussions and interactions between the nurses and wrote fieldnotes (Halkier, 2010; Morgan, 1997). The topic guide was semi-structured and developed based on decision-making theory and factors that have previously proven to influence decision-making (Higgs et al., 2018). The questions were left open to other potential influencing factors (Table 2). The FGs were held during the nurses' workday and they were paid by their employers for the time spent in the FGs. The interviews took place in undisturbed meeting rooms at the university hospital and lasted between 55 and 65 minutes; they were held in Danish and audio-recorded and transcribed verbatim.

Data Analysis

In accordance with Halkier (2010), the analysis focused on thematic content as well as the interactions that occurred

during the FGs. First, a thematic analysis was conducted to understand what was being said in the FG interviews (Halkier, 2010). Second, as data from FG interviews are generated from interactions among the informants, the influence of interactions on the nature and direction of the discussion were also considered during the analysis (Halkier, 2010).

The thematic analysis was carried out using the approach Braun and Clarke (2006) and Braun et al. (2018) described, which involves an iterative process featuring six phases. (Phase 1) The interviews were listened to and transcribed; then, the transcribed interviews were read and re-read several times and the researchers made notes of their reflections on the data using memos. (Phase 2) Initial and open codes were generated by the first and last author and data were organized into meaningful groups based on factors known to influence clinical decision-making: context, external knowledge sources, colleagues, culture, and professional experience (Higgs et al., 2018). Furthermore, other situational influencing factors were searched for. (Phase 3) Relationships between the groups and codes were identified, causing overarching themes to emerge. The preliminary themes were conceptualized and discussed with the research team. The groups of data were then clustered into three main themes representing how nurses' clinical decision-making was influenced by working in pandemic wards. (Phases 4 and 5) The candidate themes were reviewed, defined and named to identify the essence of what each theme was about (Braun & Clarke, 2006; Braun et al., 2018). (Phase 6) The final analysis was reported in a narrative structure in the present article. In the discussion section, the findings are elaborated upon via the framework of previous literature on decision-making. NVivo was used as a data management tool to assist in the analytical process (Jackson & Bazeley, 2019).

In accordance with the term late translation (Van Nes et al., 2010), the interviews were first transcribed and interpreted in Danish. The translation process into English began when themes had been identified and quotations had been selected for the manuscript. The translation was discussed several times in the research team to ensure that the translation reflected the meaning in Danish.

Ethics

The nurses received oral and written information about the study and signed a consent form stating that they could withdraw from the project at any time without further explanation or consequence. Transcripts and other data on informants were anonymized. The study was carried out in accordance with The Code of Ethics of the World Medical Association ("WMA Declaration of Helsinki," 2013) and reported to ethically approved by the research registration in Region North, Denmark (ID 2020-063).

Results

The nurses' decision-making regarding patient care in pandemic wards was influenced by situational and contextual factors related to the changed work environment. The factors influencing decision-making are described in three themes: *navigating a COVID-19 dominated context*, *recognizing the importance of collegial fellowship* and *the complexities of feeling competent*.

Navigating in a COVID-19-Dominated Context

This theme explains how physical surroundings in the newly established pandemic wards as well as the overall dominating focus on COVID-19 influenced and altered the nurses' clinical decision-making. The nurses knew they had been recruited to care for patients with COVID-19, which had also been the focus of the introduction, training, and daily patient rounds they undertook with physicians. However, in practice, the nurses realized that most of the patients had other complex care needs:

> It was as if you forgot all other illnesses. COVID-19 was the most dangerous in the world. It was as if you forgot that the patients could have other diagnoses. It really frustrated me. I just do not think that you see it all, we did not see the whole patient. (FG2)

The primary and overshadowing focus on COVID-19 resulted in less attention to other complex health problems, meaning that some patients did not receive timely care. Nurses found the complexities of the patients' diseases to be stressful, as they required special competencies the nurses did not have. They reported not getting support from physicians, as they were often in as much doubt about treatment as the nurses. Some of the nurses felt insufficient in their decision-making, as they had to navigate a context where they prepared for and focused on the respiratory deficits of the COVID-19 patients, even though many patients had other and multifaceted needs. Furthermore, interactions and discussions among the nurses revealed that the physical context of the pandemic wards and the fact that some wards were not built for housing intensive care and isolated patients, caused various challenges and dilemmas:

> There actually was not room enough for mobilization, which made it challenging. In that way it was different, because the 'setting' was not optimal for the intensive care patients. You cannot mobility-train the patients even though you know it's best for them. (FG1)

> There were rooms with no access to toilets. It felt very frustrating. It was isolation rooms, and you had to ask the patients to sit in a corner and pee in a bedpan. It just was not something you wanted to ask for as a nurse. To force your patients into a corner where they could sit and . . . (FG3)

The nurses were triggered by the fact that the circumstances and setting forced them to make decisions that—in their perception—did not concur with best nursing care (e.g., the lack

of toilet facilities contradicted nursing ethical guidelines of being attentive to making decisions that consider and maintain the patient's integrity and privacy). In addition, being unfamiliar with the wards initially challenged the nurses:

> You are with a patient who suffers from acute respiratory deficit, and you do not know where the masks are. You know what to do, but not where to find the requisites? It was very daunting. (FG1)

Although the nurses knew what to do, they were sometimes hindered from acting accordingly due to unfamiliarity with the ward and not knowing where to find essential equipment. Working in unfamiliar surroundings influenced the nurses' decision-making process, slowing their working process, or stopping them from changing initial decisions to more suitable actions. Furthermore, most patients were in isolation—this, paired with the nurses being dressed in protective garments—influenced their communication with patients:

> It was different to work in all that protective gear; I believe it influenced the communication with patients a lot. (FG3)

They initially perceived not being able to use normal verbal and non-verbal communication as challenging, as information was more difficult to convey to patients, making patient involvement in decision-making more difficult. Another issue the nurses highlighted was a concern around patients being admitted without being accompanied by relatives. The nurses initially found that they lacked important information about the patients, as one nurse caring for a patient on a ventilator reported:

> One day, I thought to myself, 'I really miss and need the relatives a lot', because in my ward, I was used to the family being there – I had no pictures of how she looked (before), I did not know her family, I had nothing to talk to her about. (FG1)

The nurses saw relatives as an important source of knowledge when designing the best possible care plan for the patients. Lacking essential information from relatives challenged nurses in gaining a full picture of the patient, which ultimately could influence their nursing care. However, the nurses became aware of how to gain access to patients' information by contacting nursing homes and relatives by phone, Facetime, Skype, etc.

Despite the influence of the COVID-19-dominated context, the nurses reported positive aspects related to clinical decision-making in terms of good staff norms, such as sitting with a terminally ill patient, asking colleagues in other wards for advice on specialized patient care and helping patients get in contact with relatives. While the nurses learned to navigate and plan care for patients in a COVID-19-dominated context, there seemed to be a persistent concern for what they did not see and could not act upon.

Recognizing the Importance of Collegial Fellowship

This theme reflects the importance of a positive and strong collegial fellowship to support nurses in decision-making in an unpredictable situation and an unknown specialty encompassing multiple aspects of nursing care. The novelty of the virus left the nurses with a lack of knowledge of the characteristics and behavior of the COVID-19 virus which resulted in a fear of what to expect and overlooking important COVID-19 symptoms in patients:

> Although we know the symptoms of patients with respiratory deficits, we have never met this virus before, and we do not know how to treat it. Therefore, we can all potentially overlook the symptoms of COVID-19 patients even though we have felt prepared. (FG2)

The nurses felt that they lacked fundamental knowledge of the virus. Knowledge they would usually call upon to collect relevant cues for decision-making. The lack of knowledge gave the nurses a feeling of insecurity in making decisions. In some cases, they perceived that using clinical guidelines was a supporting tool in decision-making although interactions between the nurses revealed different perspectives as to if and how they used the guidelines:

> A: Well, I think what really surprised me, with all my years of experience, is how little we have used local guidelines, national clinical guidelines and instructions. It wasn't as if they were flying around even though every one of us had access to these guidelines. That really amazes me, because we can actually find the information that should be guiding us.
> B: Well, I have to say I have used guidelines in almost every shift.
> A: Yeah, okay, so we two just did not work together, right?
> C: I also used the IV guideline because there was so much that I had never had in my hands before. I do not know if it's because it hasn't been that long since I attended school. (FG2)

One nurse's perception that, in general, the guidelines were not used in daily practice provoked other nurses to highlight that they were aware of the guidelines and used them to support their clinical decision-making; however, as illustrated, the nurses' use and awareness of the guidelines differed.

The media's attention on the continually worsening COVID-19 situation across the world also gave the nurses a feeling of uncertainty. As one nurse expressed: *When does it (the situation) escalate and get out of control?* (FG3). The unpredictability of what to expect regarding how the COVID-19 pandemic would develop and the seriousness of the disease increased some nurses' insecurity. An important factor for reducing nurses' insecurity in clinical decision-making

was that nurses experienced a support from fellow colleagues. One nurse described the atmosphere permeating the first period of the pandemic as follows:

> But what I really think was amazing was the enthusiasm and positive atmosphere even though some had almost been forced to be relocated. There was this devotion and sharing of knowledge and competencies which I found very exciting and good for me. (FG2)

The interactions between the nurses in the FGs resulted in an agreement that there was a positive atmosphere and a collegial fellowship at the pandemic wards:

> C: But we were, I mean, people really took care of each other . . .
> A: Yes. It was crazy.
> C: And helped each other. So very quickly, we had this great collegial fellowship. Everyone has been very nice, positive and very helpful, and it helped us a lot, that we were all in the same boat so to speak.
> A: And that is also what you miss now because you have never experienced such a strong fellowship before. (FG2)

The nurses expressed similar views on the positive atmosphere, which was further underlined by acknowledging nods from the other informants during this conversation. The collegial fellowship contributed to a joint commitment and a work environment in which caring for the patients was a shared responsibility. The shared responsibility seemed to give the nurses a sense of comfort, thereby supporting them in their decision-making. The nurses relied on colleagues' knowledge and competencies when they were insecure about their decision-making. Furthermore, the nurses represented a variety of medical specialties, which increased the amount of knowledge and competencies they could access. The joint devotion, fellowship, and collegial sparring were recognized as central and essential knowledge sources that supported nurses in clinical decision-making in situations where they felt insecure and lacked experience. However, some nurses perceived that depending on colleagues as a central knowledge source was challenging, as they did not know each other well, and in stressful situations, they were uncertain of how to help and support their colleagues.

Complexities in Feeling Competent

This theme reveals that nurses' feelings of being competent influenced their perception of being able to make sound decisions and ultimately provide the best possible care for their patients in pandemic wards. Feeling competent was characterized by complexity and influenced by various internal and external factors. During the initial process of recruiting nurses to the pandemic wards, the nurses experienced a lack

of agreement and consistency from the hospital and ward management as to which nurses had the competencies to work in the pandemic wards. Although some nurses were initially told they would not be recruited due to their lack of competency within the intensive care specialty, shortly after, they were asked to work in the pandemic ward:

> Yes, it started when it all escalated in the middle of March and the management told us that they had to recruit nurses for the pandemic wards. They told us that we were far down on the recruitment list. Between the lines, this meant that we did not have the required competencies. And then the next day, they told us that they needed two of us (for the pandemic wards). (FG1)

The mixed messages from the management left nurses with the perception that the recruitment strategy was random and not based on an assessment of who would be the most competent to care for patients with COVID-19. The nurses' uncertainty in their own competencies was further intensified by not feeling prepared due to the short notice about being relocated to the pandemic wards. However, the nurses with experience in intensive care and anesthesia felt less challenged:

> I felt quite well prepared because I'm used to caring for intensive care patients. In that way, it was not that different. (FG1)

As such, nurses with experience providing care for patients with multiple and complex care needs resulted in feeling prepared and believing in their own competencies. In contrast, nurses from other medical specialties seemed to worry about their ability to make the right decisions:

> I did think a lot about if I was able to make the right decisions at the right time and if I could act quickly enough . . . when I was not used to it. (FG2)

Some nurses were concerned about making decisions that could compromise patient safety. Even though it was made clear that they were only expected to do the best they could, the nurses did not feel reassured:

> It's just, there are all those times where it goes really well, and then that one time where it goes wrong? And something happens to the patient, and there is an unintended event, or they get hurt or something like that. Then there is probably someone who asks me if I have not read the clinical guidelines or looked up how I should have done it. Even though I had been told that the Danish Patient Safety Authority would look at it more mildly because I was in an acute critical situation, I still felt that . . . (*nurse pauses and makes a facial expression of concern*). (FG3)

The nurses perceived the message from hospital management and the Danish Patient Safety Authority as double-edged, although the intention was to reassure the nurses. Their statement indirectly conveyed the message that the

nurses were being asked to work in unknown situations in which they were likely to miss nursing care or make mistakes. This left the nurses worrying that they could be held responsible for nursing care or procedures they did not feel competent to undertake. Even though the nurses faced uncertainty in this new field of expertise, working in the pandemic wards also brought out a curiosity and desire to gain new competencies. The nurses described their relocation to the pandemic wards as an opportunity for personal and professional development:

> It could also be a (good) challenge for me to try something else. So, I was very divided about it, because I was actually a little bored in my usual job, and I thought it was a great opportunity to try something else. So, I was very divided about it. (FG1)

This adds to the complexity of feeling competent. On the one hand, the nurses doubted their own competencies when they considered volunteering to work in the pandemic wards. On the other hand, they perceived that the opportunity to work in the pandemic wards was meaningful, and they experienced improvement in their own competencies. Furthermore, the nurses reported that being a part of a team with the responsibility of mobilizing and running a new ward allowed them to be creative and adapt their nursing care to a different setting.

Discussion

In response to the aim of the study, the results show how multiple factors related to the consequences of a changed work environment during the COVID-19 pandemic influence decision-making. These factors interact with and relate to the nurses' competencies (e.g., experience from intensive wards and limited experience from a variety of medical specialties), access to knowledge sources (e.g., patients, relatives, colleagues, and evidence-based guidelines), context (e.g., isolation room, newly established wards, an overall health professional and societal concern regarding the virus, and recruitment process), and culture (e.g., collective commitment and predominant focus on COVID-19). In the following, the overall factors are iteratively discussed as related to the three key areas of decision-making: attributes and nature of the task, features of the decision that influence the maker, and the context in which the decision takes place (Higgs et al., 2018).

The study's finding that the nurses were in unfamiliar territory, causing them to feel anxiety and self-doubt, is in line with other studies highlighting that nurses working in COVID-19 settings felt vulnerable and overwhelmed both in the personal and professional sphere, as they were both under pressure and feared the unknown nature of the virus (Fernandez et al., 2020). The unpredictability of the pandemic increased the nurses' insecurity, as they had little guidance and instructions and were uncertain of what to prepare for. In line with the present findings, the urgency of the situation and working in the pandemic wards often requires nurses to make quick decisions in an unknown medical specialty and physical context (Fernandez et al., 2020; Liu et al., 2020). Due to experience from intensive care and anesthesia some nurses felt confident in their decision-making regarding nursing care despite the unknown nature of the task, whereas others who were less experienced or came from other specialties were uncertain of how to make the right decisions. The unknown nature of the task may result in rapid decisions, which are less analytical and may result in negative consequences for patients (Higgs et al., 2018). It seems imperative that nurses at pandemic wards are offered continuous education and support tailored to their individual needs in order to enhance their confidence in decision making and to increase patient safety. As revealed in the present study, some nurses worried that their decisions would compromise patient safety, which may challenge nurses' ethical beliefs as they operate within a strong moral framework guided by their personal and professional values of providing the best possible care (Bagnasco et al., 2020).

The nurses experienced relocation to a new ward within a very short timeframe in different ways. Some perceived it as an opportunity to learn new things and develop their own competencies, some were concerned about the unpredictability of the situation and some were concerned with both the unpredictability and the acuity. The acuity of the patients' conditions has been found to challenge nurses' clinical decision-making (Groombridge et al., 2019), and being rapidly relocated to a new clinical context without appropriate preparation may lead to an increase in nurses' sense of inadequacy. Furthermore, being relocated and providing care to an unknown group of patients can be stressful (Connor, 2014; Leng et al., 2020) and may result in poor clinical decision-making (Shirey, 2013). As such, there is a need for policy makers and nurse leaders to ensure appropriate preparation of the nurses and to be aware of how to support them in the stressful situation. In addition, the primary and overshadowing focus on COVID-19 in the pandemic wards and COVID-19 patients' additional diagnoses contributed to the nurses' concern that they would overlook important aspects of patient care. In some situations, this may have compromised their decision-making, as they were in doubt regarding which cues to observe and how to respond to them. Studies on nurses' experiences of working during the COVID-19 pandemic have predominately emphasized their insecurity around providing care to COVID-19 patients (Connor, 2014; Fernandez et al., 2020; Leng et al., 2020). The present study further reveals that the nurses' insecurity was caused by providing care to patients suffering from diseases other than COVID-19, which required the nurses to make decisions outside their usual clinical field of knowledge.

Lack of insight into COVID-19 and other diagnoses may result in decisions that do not consider the complexity of the patient's situation, as grasping the patient's status requires insight and knowledge of her or his diagnosis and treatment

trajectory (Nibbelink & Carrington, 2019; Tower et al., 2012). This adds to the complexities of providing nursing care in pandemic wards and seems to be an important aspect to consider when preparing nurses and other healthcare professionals for relocation to pandemic wards. Awareness of the patient's situation requires self-confidence and assertiveness (Stubbings et al., 2012). It calls for continuous focus on how to support relocated nurses in gaining confidence in their own competences. Nurses' insecurity mainly seemed be linked to a lack of confidence in their own competencies to manage and make decisions regarding nursing care in pandemic wards. This is supported by a recent study showing that the majority of the nurses who participated did not report confidence in their ability to handle suspected COVID-19 patients (Elhadi et al., 2020).

The findings of the present study point to nurses with intensive care experience being less concerned regarding patient care and feeling more prepared and robust. One study underlines that experience facilitates the development of nurses' self-confidence, and that self-confidence supports decision-making (Nibbelink et al., 2018). However, common to all of the nurses in the present study was their unfamiliarity with COVID-19 and their transition to a new clinical area, which may have initially induced shock and emotional stress (Kinghorn et al., 2017). A central feature of nurses' decision-making is drawing on previous experiences from similar situations and patient cases, as this increases nurses' cognitive ability to make more informed decisions (Cranley et al., 2009; Johansen & O'Brien, 2016; Nibbelink & Carrington, 2019). Although the nurses who were recruited from the intensive care units seemed more prepared to care for the patients with COVID-19, caring for these patients was new to all of them, which could have influenced and slowed their decision-making process (Bucknall, 2003).

In line with findings of the present study, nurses draw heavily on their colleagues' competencies when they are in unfamiliar situations (Nibbelink & Carrington, 2019; Nibbelink et al., 2018). On the one hand, the nurses relied on a strong collegial fellowship to support them in their decision-making, which is similar to nursing colleagues demonstrating a willingness to work together and possessing a "team spirit" (Fernandez et al., 2020). On the other hand, it was sometimes unclear to the nurses which competencies each of them possessed and what knowledge and support they could draw on. Working in unfamiliar teams with unfamiliar people can be stressful (Crowe et al., 2020), and communication and collaboration may be challenged by diverse perspectives and use of guidelines (Liu et al., 2020). Although working in new teams may be challenging (Crowe et al., 2020; Fernandez et al., 2020), the present findings show that the nurses considered their colleagues from other specialties to be a source of strength and an opportunity to increase their own competencies. Leaders should be aware of the importance of relocating nurses with diverse competencies to

pandemic wards and to foster a culture where nurses become familiar with each other's competencies to support each other in clinical decision making.

Methodological Considerations

Due to the ongoing COVID-19 situation, it was a challenge to recruit nurses for the FG interviews. A larger number of participating nurses would have been preferable, yet data saturation was not sought as the study aimed for a heterogenous sample of nurses representing different levels of expertise and experiences. However, it cannot be confirmed whether the full range of nurses was represented, as the participants gave accounts of nurse colleagues who were severely psychologically affected by the situation, some of whom had gone on sick leave. These nurses may not have had the surplus energy to participate in the interviews, and their views are therefore not represented in this study. Furthermore, the results must be viewed in the light of the data being collected following the first wave of the pandemic, during which time, the healthcare service was unprepared for the pandemic crisis. Several initiatives have since been introduced to better prepare nurses for relocation. Methodologically, the data on clinical decision-making could have been enriched by observational data; however, due to the uncertainty and risk of COVID-19, it was not possible to perform field observations.

Conclusion

This study provides insight into how nurses' clinical decision-making regarding patient care was influenced by the working conditions in COVID-19 pandemic wards. Clinical decision-making is influenced by multiple and interacting factors related to the nurses' competencies, access to knowledge sources, context, and culture. Working in pandemic wards in an unfamiliar specialty, context, and culture may have increased the nurses' insecurity and pose challenges in making sound clinical decisions. However, the nurses with previous experiences and competencies within intensive care did not experience insecurity and inadequacy concerning patient care to the same extent—they felt they had a solid base for making sound decisions concerning patient care in pandemic wards. Furthermore, their ethical awareness was reflected in their determination to provide the best possible care for their patients. A strong joint fellowship and commitment between the nurses to manage the critical situation enabled a culture placing special attention on knowledge-sharing and drawing on colleagues' competencies in clinical decision-making.

Relevance to Clinical Practice

Nurses' decision-making influences the nursing care they provide. This study offers an insight into and awareness of

the factors influencing nurses' clinical decision-making when working at newly established pandemic wards. These factors are important for managers and nurse leaders to be aware of and address not only when relocating nurses to pandemic wards, but also when asking nurses to work in different environments and specialties. When relocating nurses to new work environments, leaders must consider the task of preparing nurses as multifaceted; they must focus on competency development, create easy access to relevant knowledge sources such as guidelines and instruction, encourage collaboration between staff and be aware of the influence of contextual factors and culture. Attention to transparency during the recruitment process is essential to supporting nurses' confidence in their own competencies, which is a prerequisite to clinical decision-making. It is crucial that leaders foster a supportive culture where knowledge and clinical expertise between nurses from different specialties can flourish to facilitate clinical decision-making.

Author Contributions

The study was designed in collaboration with all authors who are researchers employed at the Clinical Nursing Research Unit or in clinical specialties at Aalborg University Hospital, Denmark. BL and SLV conducted the interviews and performed the analysis and drafted the paper in collaboration with MTA, KHK, MG, and MGN. All authors contributed to revise and approve the paper that presents the original results of the research.

Declaration of Conflicting Interests

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