Nurses' experience of handoffs on four Canadian medical and surgical units: A shared accountability for knowing and safeguarding the patient

Running title: Nurse's experience of handoffs

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ABSTRACT

Aims: To explore nurses' experience and describe how they manage various contextual factors affecting the nurse-to-nurse handoff at change of shift.

Design: Qualitative descriptive study.

Methods: A convenience sample of 51 nurses from four medical and surgical care units at a university-affiliated hospital in Montreal, Canada, participated in one of 19 focus group interviews from November 2017 to January 2018. Data were analyzed through a continuous and iterative process of thematic analysis.

Results: Analysis of the data generated a core theme of "sharing accountability for knowing and safeguarding the patient" that is achieved through actions related to nurses' role in the exchange. Specifically, the outgoing nurse takes actions to ensure continuity of care when letting go, and the incoming nurse takes actions to provide seamless care when taking over. In both roles, nurses navigate each handoff juncture by mutually adjusting, ensuring attentiveness, managing judgments, keeping on track, and venting and debriefing. Handoff is also shaped by contextual conditions related to handoff norms and practices, the nursing environment, individual nurse attributes, and patient characteristics.

Conclusions: This study generated a conceptualization of nurses' roles and experience that details the relationship among the elements and conditions that shape nurse-to-nurse handoffs.

Impact: Nursing handoff involves the communication of patient information and relational behaviors that support the exchange. Although many factors are known to influence handoffs, little was known about nurses' experience of dealing with these at the point of care. This study contributed a comprehensive conceptualization of nursing handoff that could be useful in identifying areas for quality improvement and guiding future educational efforts.

INTRODUCTION

In acute care settings, nurses share the responsibility of care for hospitalized patients on a 24-hour basis. Every day is punctuated with moments where those finishing a shift (outgoing) transfer this responsibility to those assuming the next shift (incoming). These moments, known as "handoffs," consist of an exchange of information about patients when the responsibility of care is transferred from one nurse to another (Cohen & Hilligoss, 2010). Handoff is an interactive process of communication and collaboration between nurses (Galatzan & Carrington, 2018).

Background

Handoffs require both technical and relational communication (Carroll et al., 2012). Technical communication is the transmission of information on a patient's condition and care. Relaying such information is recognized as the primary function of handoffs to promote continuity of care and mitigate risks to patient safety (Kitson et al., 2014)—some refer to nurses as gatekeepers of care-related information (Holly & Poletick, 2014). However, research suggests that the information shared during handoffs is often incomplete, inaccurate, or considered irrelevant by nurses, which raises questions of effectiveness and efficiency (Holly & Poletick, 2014; Riesenberg et al., 2010; Staggers & Blaz, 2013). Evidence also suggests that nurses express moral, sometimes prejudicial, judgments regarding patients (Buus et al., 2017).

Relational communication consists of the behaviors that contribute to successful relaying of information and include verbal and non-verbal behaviors such as asking questions, using a certain tone of voice, or smiling (Carroll et al., 2012). Optimally, relational communication creates an atmosphere that encourages team building, socialization, emotional support, as well as knowledge construction (Staggers & Blaz, 2013). Yet, there is evidence suggesting that handoffs can cause fear and anxiety, notably because nurses present their interpretations of data and

expose their actions, and thus may be subject to judgments and criticisms if they deviate from unspoken clinical norms (Buus et al., 2017).

Although efforts have been made to structure and standardize handoffs (Keebler et al., 2016; Riesenberg et al., 2010; Riesenberg et al., 2009; Staggers & Blaz, 2013), there is tremendous variability in how handoffs are carried out even within a single setting. Previous research has emphasized the contextual dependence of handoff and the importance of considering the context when designing and implementing handoff improvement initiatives (Bressan et al., 2020; Buus et al., 2017). For example, outgoing nurses tailor the information shared to the particular incoming nurse with whom they interact, the time available, and patient characteristics, such as stability and length of stay (Buus et al., 2017). Nurses also have diverging expectations depending on their role during the interactions—outgoing nurses prefer concise handoffs, whereas incoming nurses favor detailed handoffs (Carroll et al., 2012). In a recent study, researchers surveyed 227 emergency department nurses and found that triage flow, positive intrusions, safety climate, and relationships between nurses explained 34% of the variance in their perception of handoff quality (Thomson et al., 2018). In addition to informational and relational aspects, another survey of 286 nurses revealed that the location, environment, time, type of handoff, and use of tools such as checklists influenced nurses' perception of handoff quality (Streeter & Harrington, 2017). Thus, it is clear that nurses adapt handoffs to different types of demands and circumstances (Holly & Poletick, 2014; Staggers & Blaz, 2013), which in turn influence their perception of handoff quality and effectiveness.

Although the influence of these factors on nurses' perception of handoff quality has been broached, little is known about nurses' experience of dealing with them at the point of care. In fact, there is little evidence regarding what factors specifically affect nurses' experience of handoff rather than their perception of its effectiveness or quality. From an educational

standpoint, this is problematic considering that nurses do more than merely share information about patient care; they must adapt to myriad factors which are highly context dependent. Although it is recommended to educate nurses for handoffs by rehearsing their communication skills using real-life scenarios, role-play, and cognitive aids, it is also acknowledged that they must gain assertiveness and understand human factors and social issues involved in handoff (Bressan et al., 2020; Riesenberg et al., 2010). Still, authors have noted the lack of evidence to support handoff education (Lane-Fall et al., 2014; Lee et al., 2016), explaining that most teaching is informal and occurs through observation, with few opportunities for feedback (Kitson et al., 2014; Thomas & Donohue-Porter, 2012; Welsh et al., 2010). Therefore, exploring nurses' experience of handoff, including how they manage various contextual factors, is a relevant exercise to guide future educational efforts.

THE STUDY

Aim

The research questions were 1) what is nurses' experience of handoff, and 2) how do they manage various contextual factors during handoff? The study is reported according to the Consolidated criteria for REporting Qualitative research (COREQ; Tong et al., 2007) guidelines.

Design

This was a qualitative descriptive study, a design particularly suited to complex phenomena best elucidated through naturalistic inquiry (Bradshaw et al., 2017; Colorafi & Evans, 2016; Sandelowski, 2000; Sandelowski, 2010). It is commonly used in healthcare to illuminate nursing specific phenomena, and when the purpose is to describe experiences and gain the perspective of participants. As noted by Sandelowski (2000) qualitative description is a method that is frequently employed for questions involving the practice discipline of nursing and to discover the contextual conditions at play. Furthermore, Colorafi and Evans (2016) contend that the use of

thick description and thoughtful re-presentation of the results in a meaningful but rigorous way can inform the decisions of healthcare leaders. It was thus anticipated that the rich content generated by a qualitative descriptive inquiry could lead to an authentic representation of nursing handoff and the factors that shape the experience.

Participants

The study was conducted from November 2017 to January 2018 on four units from a university-affiliated hospital in Montreal, Canada. The units specialized in medical (A, B) and surgical (C, D) care for various specialties, including internal medicine, haemato-oncology, gastroenterology, plastics, gynecology, and orthopedics. At the time of the study, three units (A, B, and D) were using nurse-to-nurse reporting, where nurses met one-on-one at the station to transfer patients under their care at the change of shift. The other unit (C) used group reporting, where nurses met in a dedicated room to exchange handoffs for all patients hospitalized on the unit. Bedside handoffs were not conducted.

Invitations were posted on communication boards for nurses to attend one-hour focus groups interviews on selected dates. A convenience sample was formed, and all nurses involved in patient care on the units were eligible (n=141). Inclusion criteria were being a nurse, working on participating units, and occupying a role where they provided or received handoffs. Considering that qualitative description aims to describe and understand a phenomenon from the perspectives of the people involved (Bradshaw et al., 2017), no exclusion criteria were applied to allow participation of all nurses involved in handoffs on the units.

Data Collection

Focus group interviews were facilitated by one experienced qualitative researcher (CC, JE, or PL) and a research assistant (LC or LZ) in meeting rooms on the units at the end of the night shift, during lunch time, or before the evening shift. All nurse volunteers were welcomed, and an

interview guide (Appendix A) was used to facilitate the discussions. Interviews were recorded and transcribed verbatim by a professional transcriptionist. Prior to the focus groups, participants had met the researchers in a mixed-methods study of nursing handoff that had been conducted on the units (Lavoie, Clarke, Clausen, Purden, Emed, Cosencova, et al., 2020; Lavoie, Clarke, Clausen, Purden, Emed, Mailhot, et al., 2020; Lavoie et al., 2018). They were informed that the goal of the focus groups was to gain a contextualized understanding of their experience to guide eventual educational or quality improvement efforts.

Ethical consideration

The study was approved by the institution's review board. Participants provided informed consent, including for the interviews to be recorded. They received a free lunch or snack.

Data Analysis

Consistent with a qualitative descriptive approach (Bradshaw et al., 2017), analysis of the data was a continuous and iterative process aligned with thematic analysis (Braun & Clarke, 2006). Although it shares many similarities with content analysis, thematic analysis is distinguished by a higher degree of interpretation, the absence of quantification, abstract themes rather than descriptive categories, and the visual presentation of findings (Vaismoradi et al., 2013). To begin, a researcher (PL) and a research assistant (GC) independently read the transcripts, grouped meaningful units, and labelled their content with narrative descriptions. The descriptions were compared and modified until both agreed that they reflected participants' accounts and language. The goal of this exercise was to condense and organize data. To that end, a preliminary organizing scheme (i.e., structure, content, influential factors, and nurses' experience) was generated to guide the ensuing analysis.

Using an inductive approach, three researchers (PL, CC, MP) independently coded the meaningful units in each dimension of the organizing scheme. Coding was compared and refined

until a consensus was reached on the naming and definition of the codes. Data supporting each code were scrutinized to ensure that each data excerpt represented the assigned code. At the next stage of the process, similar codes were clustered into conceptual categories that remained true to the data. Similar categories were then grouped and analysed to identify a unifying theme that captured their relationship and illuminated our understanding of the handoff experience. At this point, revision of the underlying meaning of the narratives guided the conceptual mapping of themes to generate a parsimonious and authentic representation.

Rigor

Criteria for rigor as outlined by Lincoln and Guba (1985), namely credibility, confirmability, dependability, and transferability, were used to ensure trustworthiness of the findings. Credibility was enhanced as the first author invested time in observing handoffs on the units where focus group data were eventually collected. Such engagement helps to establish rapport and trust with participants prior to interviews (Bradshaw et al., 2017). For confirmability, the three researchers involved in the analytic process discussed working hypotheses and reflections throughout the analysis in order to explore aspects of the inquiry that might otherwise "remain implicit in the researcher's mind" (Lincoln & Guba, 1985, p. 309). In addition, the findings were brought back to key stakeholders (i.e., head nurses, clinical nurse specialists, and educators involved on the participating units) for validation in a feedback session (March 11, 2020), which prompted reflection and questioning around their implications. Furthermore, a description of participants' characteristics and quotes from the interviews are provided to illustrate the findings and increase confirmability. For dependability, a master log recording each step of the research process was maintained. Transferability was enhanced by developing a conceptualization (Figure 1) that assisted in interpreting the phenomenon and making relationships between themes and categories richer and more explicit. Findings are reported according to recognized guidelines to ensure that

the study can be replicated. Trustworthiness was further supported through an audit trail so that independent readers could draw conclusions about the veracity of the interpretation.

FINDINGS

Of the 141 eligible nurses, 51 nurses attended one of 19 focus groups (*n*=11 from unit A, 14 from unit B, 8 from unit C, and 18 from unit D). On average, focus groups included three participants (range: 2-5) and lasted 45 min (range: 35-62 min). As shown in Table 1, participants' mean age was 32.1 years (range: 22-61). On average, they had less than ten years of nursing experience (range: 2 months-31 years) and worked for less than five years on their current unit (range: 2 weeks-21 years). Most were educated at the bachelor level.

Analysis of the focus group data generated a core theme (Sharing accountability for knowing and safeguarding the patient) in addition to four related themes: 1) Ensuring continuity of care when letting go; 2) Providing seamless care when taking over; 3) Navigating the handoff juncture; and 4) Contextual conditions shaping the exchange. Figure 1 displays the relationships between these themes, which are further elaborated in the next sections.

Sharing Accountability for Knowing and Safeguarding the Patient

The core theme of "Sharing accountability for knowing and safeguarding the patient" is the key driver of nurses' intentions and interactions within their roles as outgoing or incoming nurse. In the role of outgoing nurse, they feel accountable for passing on their knowledge of the patient by sharing information that is complete, accurate, and up to date. In the role of incoming nurse, they feel accountable for acquiring or updating their knowledge of the patient by receiving—or digging for—this information if not forthcoming. The overarching goal of the exchange is therefore for both nurses to reach a similar understanding of the patient situation in order to ensure that care is integrated and coordinated in a manner that will keep the patient safe:

We are accountable for the information that we give. […] The person I'm giving report to, they have to listen. They need to understand that what I'm telling them. It's vital to the rest of their shift. It's vital to the patient's care and safety. (C2)

If the nurse has left and 5 minutes after your patient codes, […] you need to know the information. You don't have time to run back to the chart. [...] If I'm able to start my shift like that then I have a good report [but] at the end of the day, it's the nurse's responsibility to make sure [they] have the proper information. […] We need to know what's going on and exactly the way it is happening. (D1)

To achieve shared accountability for knowing and safeguarding the patient, participants described actions related to whether they are in the role of the outgoing or the incoming nurse. These actions are summarized in the next two themes.

Ensuring Continuity of Care when Letting Go

This theme encompasses the actions that outgoing nurses carry out to let go of their responsibility knowing and safeguarding the patient. First, participants explained that outgoing nurses are expected to present fundamental data to provide a baseline assessment for the incoming nurse to compare against the patient's current condition. This includes: 1) identification and history of the patient (e.g., diagnosis, allergies, level of care), 2) current assessment and laboratory results, 3) information related to activities of daily living, and 4) current equipment or treatments. In addition, they believed that outgoing nurses are responsible for providing a narrative of the major events leading to and during the patient's current hospitalization, as well as what happened during the shift. Yet, participants explained that they are only interested in "relevant" data and that they expect outgoing nurses to filter out anything irrelevant. Relevant data are those deemed to be helpful in guiding care for the incoming nurse's shift. Something not pertinent to the current status of the patient or that happened too long ago, opinions regarding the patient's psychosocial context, or information that did not affect the plan of care were not considered relevant. They further explained that handoff is an opportunity to share details

important for personalizing care that are not necessarily written in the plan of care, such as ways of approaching a patient or family with "difficult" behaviors:

> Sometimes things are relevant and sometimes they're not. It's good to know when it helps me start my shift. […] Sometimes, there are ethical questions. Or the patient will have a level of care of three [*maximal interventions but no chest compression or transfer to a critical care unit*]. That won't be explained in the chart, but it's still important to understand why. It helps to tailor how you will enter the room. Understand how the family will be with the patient. (A3)

Second, participants described the ways outgoing nurses would signal critical information to the incoming nurses by departing from the expected or usual methods of presenting information. For example, they would diverge from the typical reporting structure to highlight something important: "I might say: 'This is really important, and you must not forget,' and then I will go back to where I was. […] I break away from our usual structure only because there is something really important to be told" (A3). In exceptional cases, participants described how they could go to a patient's bedside to "show the equipment available [and explain] what to do in case anything [happened]" (C3). On the unit with group reporting, nurses would have an additional one-on-one handoff to signal critical information. Following effective handoff, outgoing nurses are confident that important follow-ups will be done, and continuity of care will ensue.

Providing Seamless Care when Taking Over

This theme encompasses the actions that incoming nurses perform to assume their responsibility of providing seamless care and ensuring that their knowledge of the patient is complete and accurate. First, participants explained that incoming nurses are expected to listen to outgoing nurses' presentation and ask questions to clarify and validate information by comparing it to other sources or to their prior knowledge of the patient. Questions are also used to solicit additional information not immediately presented by outgoing nurses. When they feel that they have not acquired all the necessary information, incoming nurses pursue additional sources such

as the patient's record or the nurse in charge—this was often described as an unnecessary burden that compromised their efficiency: "A bad handoff is when I have to do my own research before starting my shift. […] A good one is when I can start my shift without questions. (D1)"

Next, the information that incoming nurses acquire through handoff or additional research is synthesized into a portrait of the patient's situation and needs. With this knowledge, the nurses assume their role-specific activity of organizing their work shift and prioritizing the plan of care. Following effective handoff, incoming nurses feel confident and prepared for the shift ahead; they form expectations regarding what could happen and are able to provide proper, personalized, and timely care—while avoiding delayed or missed care that could compromise patient safety:

> I had a handoff that was really good. […] I had never had those people, so I was stressed, but by the end of the handoff, I felt prepared. I knew what was important. I felt like everything I saw, I knew what it was. I also knew my plan. That is big, to know that nothing is missing. (D2)

Navigating the Handoff Juncture

The handoff can be a high stakes exchange as the outgoing and the incoming nurse have different roles to ensure the safety of the patient that may depend on how well the encounter unfolds. Participants used five main strategies to navigate the handoff juncture and ensure the exchange is effective and meets their needs: 1) mutually adjusting, 2) ensuring attentiveness, 3) managing judgments, 4) keeping on track, and 5) venting and debriefing.

Mutually Adjusting

Participants described how handoffs involved adjusting to each other's knowledge of the patient at the onset of the exchange. If patient assignments were stable and the same nurses exchanged handoffs for the same patient over several days, the outgoing nurse could assume the incoming nurse was familiar with the patient's situation. Otherwise, handoffs would begin with the question: "Do you know this patient?" When the incoming nurse answered affirmatively, the

outgoing nurse would only present changes and exceptional or new findings or events, and follow-up on ongoing issues. If the incoming nurse had no prior knowledge of the patient, a more detailed handoff ensued. Because participants were aware that prior knowledge of a patient could result in an abbreviated handoff, they sometimes pretended not to know a patient to get a full version, which made them feel more secure about taking over the care:

> Sometimes, I do know a patient but when they say: "Do you know this patient?" Well, I didn't have him yesterday, so I just say: "No." They can fill me in for what happened last week or two weeks whether I had him or not. It's not to waste time but it's just to get a refresher, like a safety blanket. Sometimes, I say I haven't had him in one week or I didn't have him for a while. I'm doing it because it makes me more comfortable. (D5)

Ensuring Attentiveness

Specific behaviours demonstrated by incoming nurses during handoffs such as making eye contact, nodding, or asking questions were perceived to positively affect communication. According to participants, such displays of attention on the part of incoming nurses reassured the outgoing nurse that they were picking up on all the information being shared. In contrast, interacting with a nurse who did not exhibit such behaviors warranted escalating actions to ensure attentiveness by making sure that important information was received:

> Some people are not listening. […] If I see they're doing another task, I'm asking: "I can wait if you want to finish what you're doing, and I'll give you the report. Do you have any questions? Was it clear?" Just to make sure that they were listening. So, at the end of the report, at least I'm sure that I've done my part. (A2)

When they doubted whether the incoming nurse had paid sufficient attention to details, participants indicated that they would relay the handoff to other nurses or the nurse in charge.

Managing Judgments

Various types of judgments permeated participants' accounts and often created tension for both outgoing and incoming nurses who questioned their relevance for care delivery. Participants explained how they had to manage these different types of judgments during handoff. Judgments

that were more moral or social in nature (e.g., commentaries about of patients' or family

members' personalities and values) were often seen as irrelevant, since participants believed that

they mostly reflected their colleagues' personal opinions of the patients, which could be biased or

prejudicial. Participants noted that such judgments could negatively influence other nurses'

judgments and attitudes towards patients and families:

> I have heard things like "He's a little weird. He's very addicted to his medication." I noticed that it could lead to a certain attitude… […] It's better when you make up your own mind because interpretations are not always the same […]. Patients benefit from multiple views. (D7)

> Not everyone has the same interaction with families. […] The fact that you had a negative experience with a family doesn't mean that the next nurse will experience the same thing. So, when you give this information in a handoff, the next person enters the room with a pre-established judgment. (B3)

However, participants wanted psychosocial information that they believe would help them

anticipate and respond to things that may go on during the shift, specifically, how they should

approach patients or their families:

> It's nice to know things in advance. OK, the wife can be difficult, she can ask you some strange things. But I don't need [an extensive explanation] about how complex the social thing is. […] I just need anything that would affect my delivery of care. (A1)

In contrast, clinical judgments in the form of hypotheses about what might be going on in

terms of the patient's diagnosis, evolution, or response to treatment were more acceptable to

participants, if they were verifiable and supported with objective data or facts:

> You can definitely give me a [clinical] opinion if it can be verified. […] I will make my own opinion of it. […] It's absolutely essential that you gave me the facts that support your judgment. If it's just your hunch, I don't think it's useful. (D7)

In addition to judgments about patients, some participants expressed feeling judged during the

handoff exchange, especially when their counterpart's questions were extensive and insistent.

Junior nurses, in particular, felt interrogated, monitored and evaluated in how they conducted a handoff, which was intimidating and anxiety-provoking:

> I don't like when some nurses want to test you. […] It can be intimidating because it feels like they are evaluating you. […] They will question everything. […] It can be intimidating for new nurses who are not that confident. (A3)

> I used to be nervous giving [group] report in my old ward because you're talking, and everybody is listening. […] You're more careful with what you say. You're afraid of sounding stupid because everyone is listening. (B1)

Keeping on Track

Participants noted the importance of keeping on track particularly when there was a time constraint and incoming nurses were overwhelmed by the amount of information. In fact, there seemed to be a very fine balance between spending too much time in handoff and risking missing information required to know and safeguard the patient. Participants commented that any minute spent in handoff delayed their work. Thus, they expected to get the right level of detail without "wasting time." This imperative for efficiency could result in feeling rushed.

To keep on track, participants believed it was important to pace and allow ample time for handoffs in order to provide sufficient depth on the patient's situation. However, various factors could affect their ability to keep on track. For example, one participant who experienced both group and one-on-one handoffs explained:

> [In a group handoff,] you basically throw a whole bunch of information at somebody in a very short time, it just gets all mixed together and so it's hard to distinguish one patient from another. [A one-on-one handoff] is spaced out a little bit more; there is more depth given to each patient. […] You have a better idea of what patient you're going to see first, the ones who have more priority. (A2)

In addition, participants explained they had to deal with various interruptions that disrupted the exchange of information. These interruptions were sometimes due to external factors, such as a question from someone not involved in the handoff or a phone call. Interruptions could also be instigated by nurses involved in the handoff asking questions about topics that were to be covered

later or going off topic during the exchange. According to participants, interruptions led to disruptions in the organization of handoff information, which in turn led to omissions, affected their capacity to keep on track, and required actions to restore their focus:

> It can be noisy. […] When people handoff, it doesn't bother me because it's like normal background noise for me. But when they start talking about their weekends, it gets more difficult. […] I have asked people: "Can we go elsewhere?" because it was too loud. (A3)

> It makes me anxious because […] doctors are there; physiotherapists are there; students are there. Sometimes, it is just too much. […] It's either that I don't hear the information properly or… Sometimes, I'll ask the nurse to repeat it out loud. I'm just not as focused as I should be because there is so much noise around. (A2)

Venting and Debriefing

In addition to sharing information about patients, participants explained that nurses use handoffs to vent and debrief about difficulties experienced throughout their shift, a heavy workload, or unpleasant interactions with patients and families. Although it was accepted that handoffs fulfilled an important social and support function, participants felt conflicted in terms of the additional time given to these personal issues:

> People are just going off and […] tell us how their shift went: "I was really busy; I had to do this and this and that." Sometimes we're interested to know because you see them, and it looks like a tornado hit. […] At the same time, you kind of want to get your shift started. […] I guess there are better times for it [but] there is not really a time to discuss it except that time when you are together in report. (A4)

However, providing debriefing time was seen as critical to team support and bonding:

> When we're coming to report and tell stories, [people filling in] say: "We like coming to work here because you treat everybody like family." It is kind of what we are, a family, and we're debriefing ourselves when we had a hard day. (C2)

Contextual Conditions Shaping the Exchange

This theme encompasses the contextual conditions that act alone or in combination to make each handoff juncture unique. These shaping conditions fall under the following categories: handoff norms and practices, the nursing environment, individual nurse attributes, and patient

characteristics (Figure 2). They provide a foundation for understanding the situations nurses must deal with and the strategies they use to achieve shared accountability in knowing and safeguarding the patient.

Handoff Norms and Practices

This category refers to formal and informal policies and procedures related to the delivery of handoff and includes five factors: 1) framework, 2) method, 3) timing, 4) location, and 5) standards or guidelines. The first factor was a common framework (i.e., care plan) that participants use to structure the categories and the sequence of information. They described how this framework organized handoff, prevented omissions, and created consistency and predictability regarding the way in which information would be presented. Second, they explained that all units used a verbal reporting method, but there were variations in implementation—one-on-one or group report. The third factor was timing relative to the beginning of the next shift and arrival of the incoming nurse:

> Some people arrive very early and that gives you enough time to have an elaborate report. Other people come right on the dot, so you have to decide whether you can afford to give them the whole thing or just the essentials. (A4)

Fourth, participants explained that nurses would assemble in a central room shared with other health professionals, which often resulted in interruptions and considerable background noise. Others would find a quiet space to hand off. In both cases, participants commented that the location of handoffs could compromise confidentiality:

> We do have lots of family members that like to linger. Even though we're in there, the door is open, but people just stand outside the doors, they linger around. So, you lose confidentiality. (B4)

Finally, it was mentioned in every focus group that there were no standards or guidelines regarding handoffs. Most participants suggested to have a standard structure regarding the information to be discussed, which could help avoid "irrelevant information" and assist new

graduates or recent hires. They described discrepancies between how handoffs were taught in school and implemented on the units, and criticized the fact that the teaching approach on the units mostly involved nurses learning to mimic their preceptors' handoffs:

> In nursing school, they go over […] all these different models for giving and taking reports. But here on the floor, there is no strict procedure or guideline. It's more what the preceptor showed you. (A1)

> When you are being oriented, [the preceptor] is next to you and adds information to what you are saying. […] At first, you receive handoffs and realize "Oh, this is something important that I should mention next time." (D5)

Nursing Environment

This category refers to care activities (i.e., assignment, shift length, activities, workload) and characteristics of the work environment (i.e., culture, situated information) that affect handoff. Regarding care activities, participants believed that stable nurse-to-patient assignments and longer shift length meant that they could become familiar with patients and report to the same nurse, which reduced the quantity of data to exchange and handoff length: "How was their night? Nothing new? Good." (A1). Handoffs were also affected by the patterns and activities of a particular shift. For example, night shift handoffs were often less detailed, because night nurses were assigned more patients and did not perform activities that occurred during the day. In addition, heavier workloads were associated with less detailed handoffs and more omissions:

> A shift can become super hectic and then, you focus on the problems at hand. Past medical history and all that stuff gets left out. (D6)

Regarding the work environment, participants from all four units commented that their unit promoted a culture of collegiality, teamwork, and communication. As such, taking time to discuss, answer questions, and reach a deeper level of understanding of patient situations was thought of positively. As for situated information, participants noted that information on patient and their care was available from multiple, scattered sources, including patients, families, nurse

colleagues, physicians, and written or electronic documents. Still, they favored handoff as a condensed form of information received verbally from the nurse who cared for the patient; they worried going through an intermediary could result in the loss of information. They also mentioned that written sources were less reliable because of infrequent updates and nurses' more or less thorough methods of charting. Additionally, handoffs were preferred to exchange information that is not easily accessible or conveyed in writing:

> If you're describing a wound, your purple might not be my purple. So, when you chart or when the doctor asks you why there is a difference in appearance, at least we agreed it's this color. (C3)

Nurse Attributes and Patient Characteristics

Participants described how handoffs were affected by the attributes of the nurse with whom they interacted (i.e., skills, work experience, fatigue, trust) and patient characteristics (i.e., acuity, length of stay). They stated that the quality of handoffs depended on their counterpart's communication skills and the incoming nurse's ability to remember information. They associated work experience with thorough and well-organized handoffs. Senior nurses were often described as having their unique way of organizing and presenting—which did not necessarily follow the care plan framework. Junior nurses' handoffs were either described as being very thorough or lacking important information that required prompts to ensure that nothing was omitted: "They don't know if they're missing a piece of information" (A1). Fatigue was said to limit incoming nurses' capacity to listen and increase the risk of omissions by outgoing nurses. At the relational level, participants explained that it was easier to hand off to someone they trusted. They also noted that they tended to trust some nurses more than others because of their meticulousness:

> Some nurses on the unit are very, very thorough. So, you can be pretty sure that what they said is right; you trust what they say. With others, it feels more doubtful… […] Their explanations don't make any sense, so you doubt. (D5)

Regarding patient characteristics, nurses reporting on patients recently admitted or with acute conditions—e.g., recent surgery, changes in condition—provided more information, which resulted in longer handoffs:

> When the patient is unstable, I have a lot more things to say and [the handoff] is longer. But when it's been a couple of days with the same nurse, the handoff will go like "Anything new?" and it's going to be quick and over. (A1)

In summary, nurses' experience of handoff was found to involve a shared accountability for knowing and safeguarding the patient that is achieved through actions related to nurses' role in the exchange. Several contextual factors shape the handoff and prompt nurses to use strategies to navigate each unique handoff juncture.

DISCUSSION

Handoff is a fundamental feature of nursing work that transcends all specialities and care environments. This study has generated a conceptualization that illustrates the relationship among the various themes and conditions that shape this complex phenomenon. In previous research, the elements of this conceptualization have often been discussed from a perspective of handoff quality or effectiveness. The current conceptualization adds to these efforts by clarifying how they come together at the point of care to shape nurses' experience of handoff. For example, the theme 'Sharing accountability for knowing and safeguarding the patient' aligns with previous discussions of the link between handoff and nurses' responsibility regarding patient safety (Halm, 2013; Mardis et al., 2017; Riesenberg et al., 2010; Welsh et al., 2010). The functions, structure and content of handoff (which are addressed in the themes 'Ensuring continuity of care when letting go' and 'Providing seamless care when taking over') have received attention in prior research, along with the role of nurses during the exchange (Cohen & Hilligoss, 2010; Holly & Poletick, 2014; Kitson et al., 2014; Poletick & Holly, 2010). Furthermore, the 'Contextual

conditions shaping the exchange' found in this study are consistent with those addressed in previous research on handoff effectiveness (Streeter & Harrington, 2017; Thomson et al., 2018).

This study contributes to the larger body of knowledge on nursing handoff by uncovering five strategies that nurses use to navigate each unique handoff experience, namely mutually adjusting, ensuring attentiveness, managing judgments, keeping on track, and venting and debriefing. It also highlighted aspects of the handoff experience that explain nurses' use of these strategies. One of these aspects is how handoff exposes nurses' practice to the scrutiny of others, a point that has been raised previously (Buus et al., 2017). Junior nurses, in particular, felt they were evaluated during the exchange, which was a source of anxiety. Thus, participants insisted on the relational aspect of handoff and how important it was for them to initiate the handoff by mutually adjusting to each other and ensuring attentiveness—which can be linked to positive relational communication described in prior research (Carroll et al., 2012). In addition, we surmise that nurses experience other sources of stress and anxiety related to handoffs with respect to 'Ensuring attentiveness' and 'Keeping on track.' Taken together, these results suggest that, beyond peer judgments or criticisms, many handoff-related factors can be sources of stress if they compromise an incoming nurse's ability to acquire complete and accurate knowledge of the patient or an outgoing nurse's confidence that information concerning the patient's condition will be acted upon seamlessly.

A second aspect was the social and relational benefits accrued from the handoff experience that are consistent with the work of Staggers and Blaz (2013). Although often portrayed as an exchange focused on technical information about patient care, participants explained how handoff provided a rare opportunity for psychological or emotional debriefing—even if they felt conflicted about it. As such, handoff served as an unintentional source of social support among nurses, which has been shown to diminish their occupational stress and improve their mental

health (Button, 2008; Garrosa et al., 2010; Hamaideh, 2011; Yu et al., 2014). However, it raises questions as to why participants felt that handoff is one of the only occasions when they could vent and debrief. Various stress management interventions at the personal or organizational level have been evaluated and appear to be effective to reduce nurses' stress (Alkhawaldeh et al., 2020; Chesak et al., 2019). This study suggests that such interventions are needed and could complement other efforts directed towards handoff quality.

A third aspect was participants' experience of various types of judgments discussed during handoff. Although they recognized that moral judgments regarding patients and their families contained information that could help them prepare for care delivery, they also believed that such judgments had the potential to bias their attitude towards caring for these individuals. While the expression of moral and prejudicial judgments during handoff has been noted in previous studies (Buus et al., 2017), the current findings suggest that most nurses were reluctant to engage in such exchanges. Similarly, participants were somewhat averse towards clinical judgments shared during handoff if these judgments were not supported by facts and objective data. This contrasts with recent handoff interventions that promote the exchange of impressions regarding patient acuity and potential events. Such exchanges have shown diminished errors and preventable adverse events (Starmer et al., 2017; Starmer et al., 2014). The present findings could partly explain the results from the previous mixed-methods study on these units, which found that nurses exchanged primarily factual data in the form of vital signs and other known objective indicators when they suspected that a patient was at risk of deterioration (Lavoie, Clarke, Clausen, Purden, Emed, Cosencova, et al., 2020). However, despite the use of objective data, agreement in their judgments was only moderate and incoming nurses tended to overestimate risks (Lavoie, Clarke, Clausen, Purden, Emed, Cosencova, et al., 2020). This suggests that further research on nurses' perceptions and acceptance of each other's clinical judgments is warranted.

The five strategies found in this study could be further examined to understand the preparation that would enable nurses and students to effectively engage in handoff to achieve accountability in knowing and safeguarding the patient. Although education for nurse-to-patient (Grant & Jenkins, 2014; MacLean et al., 2017) and interprofessional communication (Foronda et al., 2016) has received considerable attention, less can be said about nurse-to-nurse communication and handoff. Two systematic reviews of educational interventions to improve handoff identified 10 studies published before 2010 (Gordon & Findley, 2011) and 18 studies published from 2010 to 2016 (Gordon et al., 2018); only seven of these involved nurses. According to the reviews, the educational interventions comprised three themes: facilitating information management, reducing the potential for errors, and improving confidence when participating in handoff. The most recent review highlighted the impact of context on handoff dynamics and suggested that diminishing power gradients was crucial to allow to questions to be raised during the exchange. However, the strategies identified in the current study extend beyond assertiveness or teamwork communication training and techniques rooted in high reliability teams and crisis resource management frameworks (e.g., two-challenge rule, advocacy-inquiry; Barton et al., 2018; Omura et al., 2017) that focus on dealing with potentially conflicting views.

Effective handoffs indeed require relationship-building skills and positive relational communication to a greater extent than may be appreciated by nurses, especially those early in their careers. Clinical education must assist novice nurses to develop this essential but complex skill by providing meaningful opportunities for learning about the subtleties of handoff. As pointed out by Tobiano et al. (2020), relational coordination might be useful in that respect. This theory suggests that coordination involves mutually reinforcing communication and relationship processes (Gittell, 2009). Specifically, shared goals, shared knowledge, and mutual respect are essential to support frequent, timely, accurate, problem-solving communication. These ideas

provide a framework to deepen our understanding of the interaction between communication and relationships in handoff and focus educational and organizational efforts (Gittell et al., 2015; Havens et al., 2010).

This study provides an integrated perspective of nurses' experience that could benefit quality improvement efforts directed towards handoff. Nursing leaders can use the contextual factors shaping handoff to examine how these conditions present in their setting and identify several areas for quality improvement. As an illustration, many participants asked for a checklist detailing the various pieces of information to share during handoff, which reflects previous initiatives driven by an imperative to standardize the content of handoff communication—often through mnemonics (Riesenberg et al., 2009). Although standardized handoffs have been shown to improve patient outcomes and reduce adverse events (Mardis et al., 2017; Muller et al., 2018), our findings suggest that there is also merit in flexibility and adaptation. Participants indicated how they needed to negotiate and adapt to the uniqueness of various conditions related to nurses, patients, the nursing environment, and handoff norms and practices. Therefore, we suggest that the proposed conceptualization of handoff provides a foundation to analyze, prioritize, and inform interventions that could address those situations in a more comprehensive and nurse-sensitive manner, or at least prepare nurses to manage them more effectively.

Limitations

Although participants were recruited from four different units, this was a single-institution study. While there were differences between the units, they shared several characteristics (e.g., framework for handoff, staffing practices, level of patient acuity) that may be reflected in the findings without being representative of other settings. Although the average size of the focus groups was small (n=3, range: 2-5), it allowed for greater participation and the breadth of participants' experience allowed them to make rich contributions (Wong, 2008). Additionally,

findings were presented to key stakeholders but not to participants for member checking, which could have brought more nuances. Finally, focus group interviews occurred after data collection for the larger mixed-methods study on nursing handoff. Therefore, researchers' prior involvement in the setting could have influenced participants' accounts.

CONCLUSION

This study focussed on nurses' experience of handoff to understand how they manage various contextual conditions that affect this exchange at the point of care. Although participants discussed their role and expectations regarding the exchange of information on patients' conditions and care, the relational aspect of handoff and the strategies that they use to ensure that they achieve accountability in knowing and safeguarding the patient predominated. This study generated a conceptualization of nursing handoff that details the strategies and the various factors that prompt nurses to use them. A more comprehensive understanding of the complexity of handoff may better inform quality improvement efforts and the preparation and education of nurses. Future research should aim at exploring the validity of this conceptualization of handoff in other care settings and examine if additional contextual conditions may influence nurses' experience. Additionally, the value of the conceptualization as an analytical and educational tool should be explored further, as well as the potential of relational education to improve nurses' experience of handoff.

Conflict of Interest Statement

The authors have no conflict of interest to declare.

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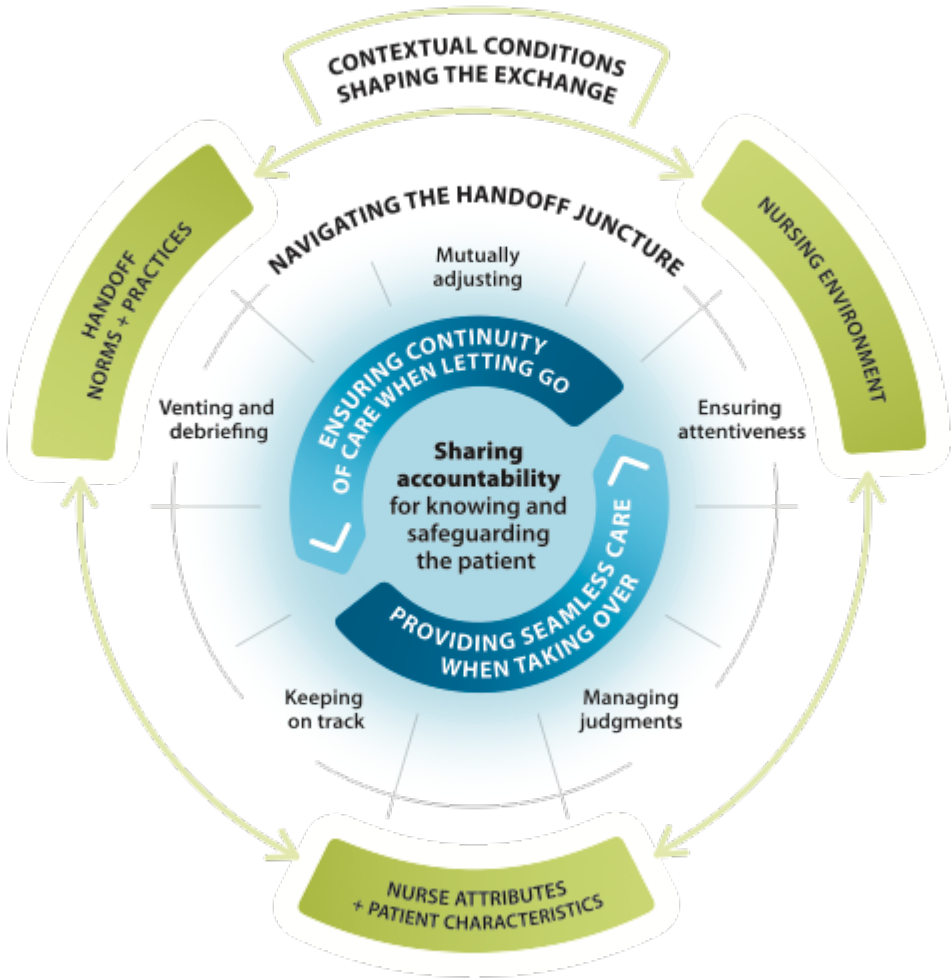*Figure 1*. Conceptualization of Nursing Handoff

Figure 2. Contextual Conditions Shaping Handoff

HANDOFF NORMS + PRACTICES

- Organizing framework
- Method
- Timing
- Location
- Standards and guidelines

NURSING ENVIRONMENT

Care activities
- Stability of nurse-to-patient assignment
- Shift length
- Usual shift activities
- Workload

Work environment
- Unit culture
- Situated information

NURSE ATTRIBUTES + PATIENT CHARACTERISTICS

Nurses
- Communication skills
- Ability to remember information
- Work experience
- Fatigue
- Trust

Patients
- Acuity
- Length of stay