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Nursing Handover: Experiences and Perspectives in the Critical Care Unit at Murang'a County Referral Hospital

[1*]Mwangi Murigi, [2]Dr. Nickcy Mbuthia & [3]Ms. Lucy Meng'anyi

[123]Department of Medical Surgical Nursing and Pre-Clinical Sciences, Kenyatta University

***Corresponding author e-mail: mmurigi71@gmail.com**

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Abstract

Continuity in delivery of nursing care to patient in the critical care unit is of utmost importance. Although nurses have a variety of guidelines and formats to conduct the handover, gaps have been detected regarding the contents of the handover and its effects on the continuity of care in the critical care unit. The focus of the study was to explore the experiences and perspectives of nurses with nursing handover in the critical care unit. The study adopted a phenomenological qualitative design. A sample of 9 critical care nurses participated in this study. The study found critical care nurses believed they were individually equipped with adequate knowledge to carry out effective departmental and interdepartmental nursing handover. The existence of handover policies in the critical care unit was considered a major enabler of the handover. The participants also believed that strained human resource, lack of standardized handover tools and deviation from the set handover rules negatively impacted the handover process. Furthermore, they reported perceived insufficiency in the management's role in handover evaluation and feedback. Moreover, all participants advocated for improvement of the current handover practices for improved quality of patient care as well as sense of self-accomplishment among the nurses. There are pertinent implications in the findings of this research for critical care nurses, nurses in other departments and policy makers. The resultant implication for each group of stakeholders promotes the adoption and formulation of effective handover practices and consequently enhanced quality of patient care through transfer of adequate patient information and sense of self-accomplishment among nurses.

Keywords: *Nursing handover, experiences, perspectives, critical care unit*

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1.0 Introduction

The need for provision of continuous patient care in healthcare organizations subjects patients to several transitions in care. These transitions occur in the form of handovers where health care providers transfer the responsibility for patient care to another team (Manias et al., 2016). The nursing handover is critical to clinical decision making and provision of quality patient care and ensuring continuity of care but it is also a potential point of failure where the quality of patient care may be compromised (Raeisi et al., 2019). Inaccurate and incomplete transfer of patient information can result in sub optimal patient outcomes (Tiwary et al., 2019). Various methods of handing over have been reported in literature including bedside handing over, verbal handing over, voice recorded handing over, written handing over and computerized handing over (Johnson & Cowin, 2013). Nevertheless, the choice of method of handing over is largely dependent on the institutional policies.

In critical care setting, continuous nursing care is achieved through the division of each day into manageable shifts. This practice of shift-to-shift handover leads to transition in the care of individual patient from the nurses who began the patient's care to a new group of nurses.

Moreover, interdepartmental nursing handover requires more collaborative and communicative cooperation between the various patient care units to promote continuity of care (Wibrandt & Lippert, 2020). The complexity of care of the critically ill patients calls for a corresponding complex division of labor in form of shifts thus leading to more transitions. The shift changes and interdepartmental handovers provide a direct opportunity to study the enablers and barriers to effective nursing handover. Despite these clinical transitions having a great impact on patient care, little studies have been done to address handover in critical care units. Literature shows a variation in the process, content and strategies incorporated to facilitate handovers in different settings.

1.1 Problem Statement

Nursing handover is a major determinant of the quality of patient care in the critical care unit. The goal of clinical handover is to ensure continuity of care and informed clinical decision making as guided by the patient condition (Ghosh et al., 2021). Nursing handover occur during a shift change within one unit or at times from one unit to another when patients are transferred in and out of the critical care unit (Loefgren Vretare & Anderzén-Carlsson, 2020). The design of the handover has impact on the safety and clinical outcomes of the patient as the handover involves the on pass of skilled responsibility and professional accountability for patient care to another professional. Although nursing handover is a routine procedure at every point of care transition, healthcare inadequacies resulting from the quality of the handover occur (Methangkool et al., 2019).

In the quest to improve patient safety, the nursing management in Murang'a county referral hospital has devised and implemented various measures and protocols to facilitate the nursing handover in the critical care unit. Although these measures are useful, anecdotally the nursing handover process is influenced by various factors. The practice of nursing handover is a dynamic process that lends itself to assessment by nurses who experience it to inform on the enablers and barriers of the process as well as the perceived interventions to customize it to meet the overall purpose of safe transition and continuity of patient care. Available literature and guidelines explicitly front the need for safe transitions during handovers in the Kenyan health care system. It is thus necessary that empirical studies are undertaken to assess the feasibility of interventions in

place to promote the nursing handover as well as the entire handover process considering the institutional and local factors in the critical care unit. Unfortunately, this area is uncharted among health care researchers in Kenya. Thus, there is considerable uncertainty on nursing handover in critical care unit as perceived by the nurses. This study was designed to address this research gap.

1.2 Research Objective

i. To explore the facilitators of nursing handover in the critical care unit at Murang'a County Referral Hospital.

ii. To explore the barriers to nursing handover in the critical care unit at Murang'a County Referral Hospital.

iii. To explore the nurses' perceived interventions to improve the nursing handover in the critical care unit at Murang'a County Referral Hospital.

2.0 Literature Review

2.1 Theoretical Framework

Dean Barnlund's transactional model of communication hold the premise that communication is a process where communicators articulate social realities within relational, social and cultural milieus (Barnlund, 2017). According to Barnlund, communication as a word describes the process of creating meaning. It is also expounded as the evolution of meaning which is dynamic, continuous, unrepeatable, circular, complex and irreversible (Barnlund, 2017).The roles of parties involved in transactional model differs greatly from other communication models. The transactional model asserts that we do not just communicate to interchange information but we communicate to build interpersonal connections, create intercultural associations, form our self-concepts and engross people to create communities.

In this model participants in the process of communication are referred to as communicators where the participants are viewed as simultaneous senders and receivers. This is important as it enables us understand how we can adapt our communication founded on the message we are concurrently getting from the communication companion (Barnlund, 2017). This model is built on two communication processes. The intrapersonal process involves encoding and decoding one's own messages for example reading a book. On the other hand, interpersonal process includes encoding and decoding another person's message as portrayed in teamwork. Verbal and nonverbal cues are also involved (Barnlund, 2017).

In this study, Barnlund's transaction model of communication was used as a framework to explain how nurses guide and engage each other in communication of patients' pertinent information during handing over in critical care setting. The theory helps frame this study by acknowledging that there is a continuous open dialogue between the nurses as communicators during handing over. Therefore, any issues severing these connections, creates disconnect resulting in ineffective passage and understanding of patient information hence impacting on the quality of patient care.

2.2 Empirical Review

2.2.1 Enablers of nursing handover

According to a Cochrane review on bedside nursing handover, communication should be structured, face to face and use information technology where feasible. Frankel et al., (2012) also underscored the role of nonverbal communication behaviors in influencing the quality and reliability of the handover process. The findings also state that a joint focus of attention facilitates the two team in handover to coordinate their visual and verbal attention. In another study conducted by Ghosh et al., (2021) using a mixed method design to compare nurse satisfaction before and after introduction of a structured communication tool, it was found that it led to positive evidence based behaviors during handover. In an integrative review of literature to identify the factors that should be deliberated when evaluating bedside handover, the crucial components of communication were noted to be: succinctness of information, clarity of information, volume of information and respectful listening (Forde et al., 2018).

In a mixed method design using Delphi technique (2018) in a study of its kind sought to find the core constituents of the nurse- nurse handover in aid to move towards a standardized style to nursing handoff. The experts in this study arrived at a consensus on the fundamental components of nursing handoff to comprise patient summary, action plan and handover summary. A Sri Lankan study to assess the quality and safety of handover in the intensive care unit found a 60% compliance level with the recommended content during handovers (Siriwardena & Mudalige, 2017).

2.2.2 Barriers of nursing handover

Globally, ineffective handover have detrimental consequences leading to wrong interventions, delayed diagnosis, prolonged hospital stays, medication errors and patient deaths (O'Rourke et al., 2018). Nurses have expressed differing opinions about the information to communicate during handovers citing lack of handover structure, policies and procedure related handover content, timing and handover process variation as barriers to effective handover (Halm, 2013). Further, complexity of patient condition and care, level of education, stress levels, technological advancements, emerging standards of care, oversight from regulatory bodies and language barriers have also been found to influence the effectiveness of the nursing handover (Johnson & Cowin, 2013).

Researchers investigating nursing handovers have identified gaps in information transfer and in communication resulting from inadequate and dysfunctional nursing handover tools and health information technologies (O'Rourke et al., 2018). Young et al., (2016) identified that too little or too much information sharing, interruptions and limited time to ask questions as barriers to nursing handover. Further, nurses have varying range of information and communication expectations during handovers.

In a qualitative focus group design study to assess barriers and enablers to knowledge translation during handover Hada et al., (2019), participants identified variability in the content of handover as a barrier to effective nursing handover. Some participants reported that some handovers contain too much information while others have scanty information (Hada et al., 2019). The study participants also reflected that the handover content also depends on the experience and style of

the communicator where some tend to give too much details while others rush through and omit important facts. The study findings rooted for standardized handover content to support safe patient care. According to a study by Smeulers et al., (2014), the guiding principles of handover communication, structured recording and use of health information technology can be used to redesign the nursing handover content and process. Although there is emphasis on the need for a standardized tool for ICU handover, its use can lead to loss and omission of clinical information that may be needed to elucidate or qualify patient situation leading to diminished quality of care and autonomy among nurses. Exercising flexibility alongside the standardized tool ensures inclusion of all important information pertaining to patient care.

2.2.3 Interventions to improve the nursing handover

Improving nursing handover process is a complex endeavor and the improvements require focus on multiple aspects (Loefgren Vretare & Anderzén-Carlsson, 2020). The structure and content of handover varies from hospital to hospital while the purpose of the handover remains the same across the health care settings (Nyikuri, 2020). Together with science, nursing is an art where effective communication and critical thinking skills are of highest importance (Dabrow, 2020).

Therefore, nursing innovation for handover is crucial for the best interest of the patient. In a phenomenological study on nurses' perception of handover, Loefgren Vretare & Anderzén-Carlsson (2020) recommended further inquiry on what defines quality handover and the intervention that can be used for improvement. Ahn et al., (2021) recommended that nursing managers can facilitate the handover process by collaboratively developing checklists, mnemonics and policies for handover as well as offer education on the same.

In a review of literature by Smeulers et al., (2014) of the nursing handover style that ensures continuity of patient information, the authors reported uncertainty about the most effective nursing handover practice. However, the authors identified one on one communication, structured documentation and use of information technology as guiding principles that can be adopted to redesign the nursing handover process.

3.0 Methodology

To realize the aim of the study, a phenomenological qualitative design was adopted while utilizing a deductive approach to find solutions to the research objectives. In-depth interviews were undertaken to gather data relevant on the subject of study. The data patterns obtained were used for the development of themes for qualitative analysis. The target population for this study were critical care nurses working in the critical care unit at the Murang'a County Referral Hospital. The unit was staffed with 22 nurses. A sample of 9 critical care nurses participated in this study.

4.0 Results and Discussion

4.1 Process and content of the nursing handover

This theme entails the broad aspects of information sharing and the transfer of patient responsibility among nurses. The researcher aimed to understand how the nurses in the critical care unit conduct handing over. Five sub-themes emerged from the interviews as discussed in the following sections.

4.1.1 Handover format

Communication of the patient information during the handover was identified as an integral process for the smooth operations of the unit. All the participants identified verbal and written handover as the major channels of communication for handover. The complementary nature of the two handover formats was also apparent as reported by the participants.

"Patient centered information is communicated verbally to the incoming nurse and every nurse has a written patient handover report on the nursing cardex." (p2)

"Verbal handing over between primary nurses is sometimes incomplete hence the need to gather more information by reading the patient medical records yourself in the written report." (p1)

4.1.2 Setting of the handover

Handover communication was found to occur in two major settings; the nursing station where all nurses converge for scrum report and at the bedside between primary nurses. At the nursing station the shift team leader gives a general report of the unit. The general report was perceived by nurses as a crucial aspect in preparing them for duty ahead in relation to patient condition and status of equipment and other supplies.

"The shift team leader gives a verbal report about the general status of the patients at the nursing station in the presence of all nurses." (p1)

"verbal handover report is given by the shift team leader at the nursing station consisting the general status of the ward, followed by a physical bedside round; patient demographics, number of days in the unit, patient progress, priority information for example creatinine level for AKI patient; the receiving nurse seeks clarification during the bedside handover (p5)"

"During general report information regarding the general status of the unit is given as well as the status of the equipment and pharmaceutical resources. (p4)"

4.1.3 Timing of handover

The critical care unit runs on three shifts thus the point of care transition occurs at the beginning and the end of shift (three shift system 0730 hours- 1230hours, 1230hrs-1830hours, 1830hours-0730hours). In addition, handing over takes place when the unit receives patients from other hospital departments and when stepping down the patients to the high dependency unit or the wards. The morning and evening change of shift are considered the points where major handing over occurs.

"We have three shifts but in the unit major handing over occurs during in the morning and evening shifts. (p4)"

4.1.4 Quality of handover

The critical care nurses' perspectives regarding the shift to shift and interdepartmental handovers was diverse as evidenced by diverse ratings of the process. The interdepartmental handover was reported to be ineffective while the shift to shift handover varied from unsatisfactory to very good.

"I would describe the handover process between the ward nurses and critical nurses as chaotic; the handover is usually short of comprehensive patient information may be because the nurses are not trained at our level or their role is just to escort the patient. (p7)"

"I would describe it as sometimes good and sometimes disgusting… Verbal handing over between primary nurses is occasionally incomplete hence the need to complement the information by reading the patient medical records yourself. (p1)"

4.1.5 Completeness of handover information

The amount of the patient information exchanged was identified as a key determinant of the quality of the nursing handover. Patient information devoid of gaps was identified as a facilitator in the provision of holistic care and enhanced nurses' confidence while caring for the patients as well as facilitating decision making. The emergent categories are presented below.

Shift-shift handover

The content of shift-to-shift handover was reported to be optimal amid conspicuous gaps. To enhance handover quality, the patient information was presented in head-to-toe format as well as health deviations and finding in the body systems. However, the patient data components for each of the body system were determined by the individual nurse hence a diversity in perception of completeness of the information shared.

"Here it is effective because documentation is complete in the cardex and charts and verbal report given clearly. (p9)"

"The written handover contains good amount of information to enable us understand the patient – using nursing cardex with patient information outlined in the systemic approach; CNS, CVS, RESPIRATORY, GIT, GUT, Skin and musculoskeletal systems, but verbal handover has more details of observations that are not recorded in the cardex. (p7)"

"The nature of nursing handover is dependent on the individual nurse' some will give scanty and very limited information while paying more attention to what has been done to the patient, other will be more comprehensive outlining the patient information ranging from physical examination findings, interventions done to medications and pending issues- ' you will note for example that the content and length of the handover report correlates with the documented patient information, nurses with incomplete documentation tend to share limited information, for instance one may just mention the type inotropes the patient is on but not the details of dosage and patient response. (p4)"

Interdepartmental handover

The content of the handover between nurses from the other departments and critical care nurses was considered inadequate and one marred with conspicuous gaps. The participants pointed out nurses' limited knowledge of the patient and lack of complete or accurate patient records. However, the participants claimed comprehensive handing over to nurses in other departments.

"There is a challenge of information…they give scanty information; name and diagnosis, no more details, I feel that the external handing over is not done to the best standards; sometimes the information given in handover is inaccurate thus the need to double check-an instance occurred

when patient record and verbal report indicated patient's blood sugar of 10.1mmol/l but on retesting the RBS was 1mmol/L – reliability of the information questionable. (p6)"

"Handing over not complicated because patient out of danger. The ward nurses' have an attitude, they discourage transfer of detailed patient information, but we give priority information including current management and plan of care and what to monitor for the patient. (p2)"

4.2 Enablers of the nursing handover

Despite the participants having varying degree of contentment with the process and content of the handover, there were identifiable factors that aid the nursing handover process. All the participants reported that these enablers of the handover allow for the sharing of optimal patient information to aid provision of care by the incoming nurses. The topics discussed in the subsequent sections relate to the aspects of the enablers of the nursing handover.

4.2.1 Professionalism

The study participants identified professionalism as an integral part of the handover process. Throughout the interviews, aspects of professionalism emerged in line with adherence to the institutional and unit handover policies and personal responsibility. Although the participants reported efforts to adhere to the policies, there were notable lapses in observing the rules. The following section elaborates further on the aspects of professionalism in place to ensure an effective transition of professional responsibility and accountability during nursing handover.

Handover policies

Deriving from the interview data several components pertaining to rules and regulations are evident. Firstly, the time of arrival for duty and start of the handover were set and known to all nurses. Adherence to time was vouched for by a majority nurses as a key factor in ensuring a seamless handover process and therefore a requisite for provision of quality care. Further, the handover process begins when all nurses are present as narrated by the participants.

"Adherence to departmental rules that nursing handing over only starts when all members of staff are present ensures that all nurses are conversant with the patient conditions and plan of care.(p3)"

"Our rules have made it a routine that all nurses must be present for the handover to start, this ensures that all nurses get patient information necessary for care planning. If one is extremely late, the nursing notes and the general report act as summaries of the patient information. (p6)"

The handover was also by design supposed to take place at the station where the shift team leader gives a scrum general report of the unit and then proceed to the bedside. The nursing station was reported to be spacious, well-lit and quiet. Nurses acknowledge that this practice creates a mental picture of the tasks ahead thus preparing them for the shift.

"Getting general report enables nurses to share their expert views regarding patient care as they may not be able to do so when patient allocation is done as the primary nurse only hands over the patient to the next primary care nurse… and bedside handing over allows for better transfer of patient information as the scrum information is verified and double checked on the bedside. (p6)"

"The nursing station is spacious to accommodate all staffs together with patient records and good view of the patients preventing unnecessary interruption resulting when trying to locate patient records. (p3)"

The allocation of patients to nurses for care provision was viewed by nurses as a major facilitator of handover as it holds one accountable for passing patient information to nurses in the next shift.

"allocation of the staff to patients is good because each staff is responsible for handing over patient care to the other nurse at the end of the shift-"the criteria used for allocation is based on the number of nurses present and the patients and sometimes the nurse's experience in operation of equipment and managing conditions. (p5)"

Moreover, handover policy in the unit obliges the nurses to use a common format of handover; the systemic approach in effort to have a standardized handover. The participants also reported that a nurse must have a written handover record as well as give a verbal report on the bedside for coherent handover.

"Here we have our way of doing the handover by using the systematic format- though it is also subjective on what to include. (p7)"

The three-shift system utilized by the unit was proposed by participants as an enabler of the handover as it enhanced knowledge of patient condition.

"Our shifts expose the nurses to the patients knowing them well-most of them are long stay, work for two consecutive day shifts the proceed to night shift, this increases knowledge regarding patient management and tracking the patient progress, in the long run during handing over a nurse is able to share comprehensive and detailed patient information during handing over. (p7)"

Personal responsibility

Individual nurse responsibility was also a conspicuous aspect of professionalism throughout the interviews. Most nurses stated that dutiful calling allowed them to share much information necessary to enable the next nurse provide quality patient care.

"Personal responsibility and honesty makes the handing over effective as we have developed a good attitude where we do not lie or make up information- if one has not done something will report as not done and handover the task to be completed by the receiving nurse. (p4)"

4.2.2 Interpersonal relations

Throughout the interviews aspects of collegiality and teamwork were conspicuous as enablers of an effective handover. The collegial relations occurred among nurses and the management.

Nurse-nurse relations

The participants felt that good working relationship with fellow nurses allowed for the formal and informal exchange of patient information where clarification and probing would take place without feelings of intimidation. Good interpersonal relations was identified as a key facilitator of the communication process during handover and subsequently effective transfer of patient information.

"The relationship with colleagues is excellent, there is no tension while giving the report…everybody feels at ease thus able to handover the patient information effectively, the environment is work friendly' everybody enjoys working. (p1)"

"Team work and good interpersonal relations gives us freeness, we ask for clarification of information or somebody to repeat and it is taken positively. We are also able to contribute to handing over information in case the primary nurse forgets or omits critical information regarding a patient. (p6)"

Leadership-staff relations

The role of the unit management and leadership in handing over was perceived by the participants as supportive. The team leader and supervisors' relationship with the staff was projected to be cordial and one that envisaged a good working environment.

"We have a supportive unit manager with competent team leaders, they help where needed and are also involved in the care of the patient thus they assist primary nurse's information during the nursing handover. Other than the managerial roles they participate in emergency situations for example cardio pulmonary resuscitation, they are responsible for compiling and giving the general report at the nursing station. (p4)"

"There is no unnecessary pressure from the supervisors that would interfere with the handing over process. (p1)"

4.2.3 Nurse characteristics

The nurse characteristic aspects that emerged from this study are the nurses' level of experience and specialization. As illustrated in Table (1), the participants have diverse levels of experience while all of them have a specialty in critical care nursing at a higher national diploma level. The participants perceived the two aspects as key enablers of the nursing handover as discussed below.

Experience

The level of experience was associated with the ability to understand patient conditions and consequently the aptitude to give a comprehensive handover information.

"With long working experience the nurse is able to understand the patient condition better enabling one to give a comprehensive handover as well as knowing areas where to seek clarification in case they are omitted. (p1)"

One of the participants alluded that the level of experience is directly related to the quality of the handover as stated below.

"Nursing experience - experience of working in the critical care unit is directly related to the quality of the nursing handover- more experienced nurses share comprehensive and detailed patient information while less experienced nurse are often limited in information sharing with the need to probe and seek clarification to get more patient information. (p6)"

However, regarding handing over other participants viewed experience in terms of the length of interaction with a patient.

"Most patient information gained from daily interaction with the patient allows for the transfer of sufficient patient information enabling continuity of care between shifts. Patient knowledge also prompts probing when an important aspect of patient information is omitted for example knowledge of a patient who had blood transfusion would prompt me to ask the current hemoglobin value if not mentioned. (p8)"

Specialization

Specialization in critical care nursing by all the nurses in the unit was considered by all participants as a major facilitator of the nursing handing over process. It was vouched as an integral aspect in aiding the interpretation of information exchanged during handing over, determining what information to share, enabling the use of tools available for handover and ability to operate advanced medical equipment for example retrieval of patient records such as vital signs from physiologic monitors necessary for handing over process.

"All the nurses working in the unit are trained critical care nurses, this enhances communication and understanding of the patient information minimizing chances of misinterpretation of information. The critical care nurses are also able to know when and where to seek clarification in case critical information is omitted. (p2)"

"All the nurses working in the unit are trained critical care nurses at the level higher national diploma. This quality gives the nurse ability to understand the pertinent information to transfer as well as aid in the interpretation of the information shared. The nurses are also able to identify gaps in the information shared and are able to probe more in order to have a holistic picture of the patient. (p5)"

4.3 Challenges in the nursing handover

Despite the optimal status of the handover process, there were reported challenges to the entire process. The researcher sought from the participants the barriers to the handing over process as perceived in their daily practice. The nurses identified issues of time, non-standardized handover, resources, personal limitations and supervision as the barriers as discussed below.

4.3.1 Timeliness

The concept of timeliness as a barrier was identified to occur in respect to punctuality and delayed communication of decisions by other team members.

Lateness

Regarding staff arrival time for shifts and by extension the handover process, the participants reported lapses in punctuality that often led to hurried handovers as the outgoing nurses are fatigued. Handover process undertaken in the context of limited time was short of comprehensive patient information rendering the process ineffective.

"Lateness for duty is an issue leading to delays in starting the nursing handover; then process of handing over is done quickly where it's quality is negatively affected… this usually happens in the morning handover when the night shift staff had a busy night.(p2)"

"Lack of punctuality ... lateness for duty is another challenge we have during handing over especially the night shifts in this case the process of handing over is done faster which I think is not up the standards because all what the outgoing nurses want is to finish and leave. P6"

"Failure to get the whole report due extreme lateness or interruptions leads to an ineffective handing over, these breaks in the handover process interfere with the purpose of nursing handover which is passing of patient information for quality patient care. (p4)"

Delay in communication

Untimely communication among the team members emerged as a barrier to effective handover. It was reported that when a decision regarding patient management is made and not communicated it often amounts to information gaps during handover.

"Lack of communication from doctors; sometimes the doctors order investigations or procedures for patients but do not communicate to the nurses who are sometimes overwhelmed and have no time to check patient files, later these manifest as gaps in handover leading to incomplete nursing handover. (p2)"

4.3.2 Non-standardized handover

The nurses identified the lack of a standard tool for handing over as a major challenge in determining what information to include during handing over. A majority of them proposed that a checklist would harmonize the type of information exchanged since with the use of a cardex it's the nurses' discretion to determine what information to share. The comments reflecting lack of standardization as a barrier are as below.

"There is no standard way of handing over patient information for example the ward nurses give scanty patient information; we also lack a checklist to prevent omission of important information that might be forgotten in case of interruption or fatigue. (p1)"

"Lack of a handing over checklist poses a risk of omission of important patient information especially when the receiving nurse fails to question or seek clarification of certain information- this is a major challenge when a nurse has less experience in critical care nursing. (p3)"

However, one participant reported the existence of a checklist for more than two years but has remained unutilized. Some participants were not aware of the tool as it was not integrated into the patient files.

"Lack of a standard tool for handing over but there is a checklist for handing over that has been around for two years but not in use, the medical records department has not incorporated it into the nursing cardex. (p2)"

Other participants felt that the establishment of the CCU in the hospital during the COVID-19 pandemic has affected the operations of the unit for example the standardization of handover process in the unit.

"Being the first ICU in the county and started during the covid-19 pandemic, more emphasis has been on care provision activities while adopting a handing over format that is common to all at least for now.(p8)"

"It being a new department in the hospital we are still in the process of establishing and learning the best ways for the best operations of this unit – that is within the unit and at the hospital nursing management level. (p9)"

Resources

Human resource capacity in the critical care unit was a predominant issue that took a center stage among all the participants. Nurse-patient ratios in care provision was reported to be inappropriate especially at the peaks of COVID-19 infections. Though an institutional issue the nurses felt it negatively impacted the quality of the handover. The unit is staffed with twenty two nurses with a thirty five-bed capacity operating in three shifts. It was reported that at times a primary nurse may be allocated for three patients. With the voluminous documentation in the ICU, patient records are often incomplete as priority is given to patient care activities.

"Nursing shortage and patient load-the nurse-patient ratios do not reflect the recommended 1:2 ratios of ICU Level II hospitals, here you might find yourself with up-to five patients when the unit is at full capacity, with this workload and fatigue there is often little time for documentation and therefore incompleteness of patient records and gaps in the handing over. Because there is poor patient monitoring, you cannot track patient progress thus the information given in handing over may not reflect the true picture of the patient. (p5)"

"The ratios in this unit is not the ideal for CCU, sometimes one nurse has three patient, you see now you can't manage to document properly and therefore even the handover report will have many gaps because care giving activities take most of the time. So the receiving nurse will understand some of the gaps. We are used to it. Fatigue also discourages one from giving a comprehensive report, all you want is to leave the unit and rest. (p2)"

One participant also noted that the lack of a central monitor in the nursing station interfered with handing over of real-time readings during handing over at the nursing station.

"We don't have a central monitor for reporting the actual patient observations for the nursing station handover, sometimes the readings on the observation charts are taken a while before the handover time and may not reflect the current status of the patient.(p6)"

4.3.4 Interruptions

The participants identified interruptions resulting from patient emergencies, team members and visitors. The interruptions during the nursing handover were acknowledged as a challenge to the handover process. The visiting time and the handover often coincided leading to a break in the flow of information sharing.

"Interruptions during the nursing handover for example patient emergency, interruption from other team members, inquiries from visitors with matters unrelated to patient information often leads to a break in the train of thought and eventually interference with the handing over process, some information may be forgotten or skipped.(p3)"

4.3.5 Time of patient admission

The time patients are admitted to the critical care unit also featured as a challenge to handing over. One participant reported that there is a tendency to delay planning of care for patients admitted

towards the end of shift. So for this group of patients information shared is often limited with the potential to affect quality of patient care.

"The time of patient admission in relation to closeness of change of shift is a major challenge to the effectiveness of the handover. Most often the nursing handover in this instance is faced with incomplete patient information because the patient is perceived to be more of the next shift than the current. The incoming nurse often struggles to gather information that will enable provision of quality care. The outgoing nurse is more concerned with ending the shift than initiating care. (p4)"

4.3.6 Inconsistent handover

Handover consistency in the unit was reported as a challenge in the nursing handover. At the unit level some participants felt there was a laxity in the enforcement of handover policies. An instance is where handing over for the midday shift sometimes does not take place when some nurses in the morning shift are doing a full day shift. This is to the disadvantage of the incoming nurse who is forced to seek information using other channels.

"The nurses have more 'laissez faire' people are not followed to form and maintain a habit of effective nursing handover; the midday shift at times does not take place this forces the incoming nurses to refer and read the report book in order to know the patient, it is difficult to provide care when not aware of pending interventions such as blood transfusion, diagnostic investigations. (p1)"

4.3.7 Quality control

At the institutional level, the participants perceived inadequacy in how the nursing management enforced and evaluated handover documentation in the critical care unit. To some evaluation only happened when there was audit following eventualities.

"The management only goes through the patient records when there is an audit following death or patient complications, and it's from these audits that ICU handing over documentation has been said to be the best in the hospital, I feel we need a quality team that routinely examines our documentation. (p1)"

"There are no rules to enforce the quality of nursing handover for example nobody is bound to giving detailed patient information. (p8)"

4.3.8 Intrinsic challenges

The other set of challenges related to the handover process was the aspect of individual challenges that resulted from virtue of working in the unit. Three categories of the challenges are presented in the following sections.

Fatigue

All the participants reported fatigue as a major barrier to an effective nursing handover. More specifically the burnout resulted from high patient numbers and acute patient conditions in the context of fewer staff. Fatigue resulted into missed care activities, incomplete patient records and consequently patient information gaps during handing over.

"Sometimes am overwhelmed due to workload that I may not have enough time to document everything I have done to the patient or every observation I have made and eventually this information may be forgotten during handover making it ineffective. (p9)"

"Complex patient conditions needs involvement of the nurse on the patient's bedside, the nurse may lack time to document comprehensive patient report but only manage to complete the observation charts, consequently the handover will have gaps. (p3)"

Patient encounter

The nurses are allocated to different patients to provide care in the various shifts. Thus, the nurses have knowledge of several patients as determined by previous allocations. In this context some participants reported that there is a challenge in information exchange when an incoming nurse is set to care for a patient he/she has previously cared for.

"Knowing the patient after having cared for them previously is bad, here you find a nurse may not be interested to get the whole report, they assume they know the patient already. "Status QUO". But in real sense patient condition might have changed so this informal handing over is a challenge. (p8)"

Demotivation

A participant acknowledged that demotivation due to remuneration issues demoralized the nurses in their activities in the unit handing over included.

"You know motivated staffs are able to dedicate all their attention to the jobs, here sometimes we feel a lot more demotivated due to salary delays that can go for months, we are forced to find locums in other places to sustain ourselves so fatigue also interferes with all aspects of nursing activities handing over included.(p5)"

4.4 Strategies for improved handover

This theme addresses the nurses' perceived strategies that would improve the quality of nursing handover if implemented. From the qualitative data analysis it emerged that all the participants felt the need for an improved nursing handover process. Through the proposed interventions the potential benefits identified were timely care, quality of patient care and nurses' sense of self-accomplishment. Four sub-themes emerged from the analysis of transcripts as discussed in the following sections.

4.4.1 Training

The aspect of training on the nursing handover appeared in two forms; one involving training of nurses across all nursing departments in the hospital because of the handover processes between critical care nurses and nurses in other departments. Secondly, education targeting the critical care nurses for the purpose of streamlining the shift-to-shift handover process. Majority of the participants expressed the need for targeted and continuing handover education among nurses in order to practice an effective handover that serves the purpose safe transition of care coupled with adequate patient information devoid of gaps. The participants suggested both internal and external contexts as avenues for training.

"Yes we need to improve our handing over, education on nursing handover to all nurses in the hospital through CMEs will help the handing over process. (p7)"

"The management can organize for benchmarking on nursing handover in a private hospital intensive care unit to improve the practice in this unit. (p8)"

4.4.2 Standard handover

Lack of a standard handover tool emerged as a major challenge in the handover process. Therefore, all the participants expressed the need for tools to in the process in the form of checklist and computerized handover tools.

"I suggest introduction of computerized nursing handover with a checklist that would enable a quick handover and offer quick retrieval of information when written records are being used by other health care team members for example when a patient is being reviewed by a physician and nursing handover is going on, as well as for patient monitoring at the nursing station. (p3)"

"Introduction of a standard handing over tool to ensure that all important patient information is shared and to ensure proper documentation for reference to avoid cases where one is called when at home to give information about something. This is often not taken lightly and interferes with interpersonal relations. (p4)"

However, other participants suggested the reintroduction and reinforcement of the use of the existing handover tool.

"The management needs to ensure use of the nursing handover tool we have to standardize the content and format of the nursing handover, this will reduce the omission of important patient information and also assist the less experienced nurses in sharing adequate patient. (p6)"

"Reinforcement of the use of the standard template for handing over to complement the systemic approach of handing over will be necessary. (p8)"

"The health records team to integrate the handing over tool in to other patient records and the unit in-charge to enforce the utilization of the tool. (p2)"

4.4.3 Teamwork

The importance of teamwork was addressed pointing towards a handover that would include all team members in the critical care unit to enable a holistic handover that maximizes information transfer in one sitting and to all staffs responsible for patient care. The professionals in the unit include nurses, doctors, pharmacists, laboratory technicians and health record officers. It was evident that handing over only occurred between nurses while the other professionals involved in the care of patients only filed their plan of care and findings.

One participant suggested the need for an all-inclusive handover where even the doctors should be part of the process to ensure that their plans are also communicated to other staffs.

"There is lack of communication from doctors, sometimes the doctors order investigations or procedures for patients but do not communicate to the nurses who are sometimes overwhelmed and have no time to check patient files, later these manifest as gaps in handover; they should also participate. (p2)"

4.4.4 Enhanced quality control

The participants raised concerns on the role of the management in facilitating the handover process. According to some participants the unit management ought to be strict with handover policies including punctuality and reinforcement of the use of the existing handover checklist.

"I think the nurse manager and nurses need to agree on maybe a change of shift time that will attract punctuality from majority of staffs if not all. (p4)"

"Punctuality for work should also be addressed. (p7)"

"The unit manager should make a strict follow up on the handing over process and enforce a routine of handing over for the three shifts. (p1)"

Regarding the senior nursing management at the institutional level, participants expressed the perceived need for periodic audits and feedback on the handover in the unit by quality assurance teams.

"A taskforce should be formed to supervise and audit the nursing handover and give feedback and recommendation to move people from the comfort zone. (p1)"

4.4.5 Improved nurse-patient ratios

Nursing staff shortage and increased workload were the predominant labor issues identified by the participants as discussed in theme 3. All the participants posited that imbalanced nurse-patient ratios had a negative impact on the handover process and consequently the quality of patient care. To address the staff shortage, the participants expressed a clarion call to the institutional management to consider hiring of more personnel to ease the work load and to achieve an appropriate nurse-patient ratio for a level II ICU facility. This they said would improve quality of the handover and quality of care to the patients.

"Addressing the nursing staff shortage to fix the nurse patient ratios would ease the nurses' workload and allow more time for proper documentation and mental fitness for effective nursing handover. (p3)"

"Addressing the nursing staffing patterns with the view of easing the nursing workload to enhance the completeness of care activities as well as documentation to facilitate safe and continuity of care during handing over. P9"

4.3 Discussion

Theme one underscored the transfer of patient information with regards to the process and content of the handover. The handover utilized a verbal and written format with the complementary of the two modes. Throughout the study the participants vouched for the use of both verbal and written handover to reduce gaps in patient information. The participants reported the use of both formats in handover at the nursing station and at the bedside. According to Merten et al. (2017) in a study of safe handover a good handover approach involves emphasis on crucial elements such as the expected interventions within the subsequent shift or details of any treatment orders such as fluids restriction. Comprehensive communication of patient information is fundamental for provision of excellent health care. The setting of the nursing handover was reported to be crucial for handover. The general report at the nursing station provided a mental picture of the unit and the task ahead

while the bedside handover provided patients' centered information to the primary nurses. Time for the handing over was designed at the beginning and end of shifts which facilitated the transfer of patient information between the incoming and the outgoing teams. This finding is in tandem with results of a study that sought to observe and compare current handover practices in a coronary care unit where in a majority of instances time for handover was set aside and attracted a good attendance by the nurses (Titu, 2019). The transfer of patient accountability from other hospital departments for example the theater to the critical care unit was acknowledged as a high-risk point in the care of patients. The nurses had diverse perceptions regarding the effectiveness of the handover as evidenced by the participants' rating of the process. Based on the response's nurses perceived the shift-shift handover as more comprehensive in-patient information exchange compared to the interdepartmental handover which was described as lacking and deficient in nurses' knowledge of the patient condition and insufficient documentation. In a study to establish the factors associated with the quality and perceptions of clinical handover Pun found out that perceived quality of handover largely depended on the nurses' degree of understanding of patient care plan (Pun, 2021).

For theme two, professionalism is essential for an effective nursing handover. The finding embodies how compliance with handover guidelines for example timeliness, patient allocation, presence of a team leader together with personal accountability enable an effective handover. Patient allocation prior to handover was considered essential in upholding accountability for subsequent handing over. The nurses reported a feeling of self-obligation and an internal urge to share all information they felt would enable the incoming nurses provide quality patient care. Good working relations among nursing teams creates a working environment that is conducive for handover. Collegiality was identified as a key component in the communication process whereas the nursing leadership in the unit was identified as critical in offering guidance and assistance during the handover and the entire operations of the unit. According to Cowan et al., (2018) clinical handover and patient safety relies on several factors including team work and effective leadership. The participants universally acknowledged the essence of specialized training in critical care nursing as a formidable requisite for communication and interpretation of the handover information. Level of experience in critical care nursing was also vouched as a nurse characteristic enabling the nursing handover. Experience is a vantage point for probing, double checking and seeking clarification in relation to handover information shared for the purposes of understanding the patient holistically. Previous studies have portrayed clinical handover by newly qualified nurses as challenging often leading to ineffective handover information transfer (Chung et al., 2021). In a review of literature to find issues upsetting bedside handover in critical care area, the authors isolated nursing experience and skills in communication, adequate and clear information as well as high level of interaction to be a recipe for effective handing over (Alrajhi et al., 2018).

Theme three addresses the challenges in the nursing handover. Regarding time, the findings of this study are consistent with previous studies where lack of punctuality was identified as a major barrier to the handover. Hada et al., (2019) in a study to assess the barriers to evidence based clinical handover found time constraints as a challenge to handover. Moreover, the participants identified delay in communication of plan of care by other team members as a cause of information gaps in the nursing handover. The understanding is that current plan of care should be communicated to the incoming nurses but when patients are reviewed and plan not communicated promptly, nurses felt that continuity of care which is the main purpose of handing over is not

achieved. Poor communication frequently leads to deleterious patient outcomes including but not limited to care lapses and compromised safety (Vermeir et al., 2015).

Lack of standardized tool for nursing handover led to omission of crucial patient information. Without a standard tool it was at the nurses' discretion to determine the content of information to include rendering handover more subjective than objective. The practice of handover is at times dismally performed with critical data omitted and inappropriate data included where there is no use of structured and standardized frameworks such as SBAR that is recommended by the WHO as it improves patient outcomes (Burgess et al., 2020). The lack of a tool or nurses' inability to utilize a standardized tool is a major cause of ineffective handover (Gunawan et al., 2019). Unique to lack of a standardized handover was the report by the participants that being the first CCU in the county and operationalized in the year 2020 as necessitated by the global COVID-19 pandemic, majority of staff felt that the existence of the disease and the circumstances in which the unit was established had dragged the operations of the unit including the handing over with more emphasis has been on care provision activities while adopting a temporary handing over format that could be utilized by all nurses. In the era of COVID-19 amplified staff turnover and deployment of staff in new clinical settings has created challenges in provision of effective handovers (Li Tan et al., 2021).

In a study to evaluate the impact of high nurses' workload on quality of documentation of patient information, the authors concluded that incomplete documentation was related to high workload (Shihundla et al., 2016). Nursing staff shortage leading to inappropriate nurse-patient ratio for level II CCU was the most reported institutional barrier to effective nursing handover documentation. According to Shen et al. (2020) appropriate nurse staffing pattern is associated to quality of nursing services in hospitals. Distractions in the form of interruptions during the handover emanating from inquiries on matters unrelated to the handover were reported to interfere with the flow of the handover. Similar findings were reported by Spooner et al. (2013) where interruptions that do not benefit patient care during handover were found to affect continuity of patient care and safety. Notably, inadequate handover information exchange occasioned by the admission of a patient towards the end of shift was also apparent. The accountability for these patients was delayed for the incoming team of nurses. The role of the nursing management in ensuring quality of nursing handover was reported to be inadequate as was evidenced by inconsistent nursing handover where a midday handover rarely took place. However, this was noted to occur when some nurses had full day shifts. Contrary to the staffs' perception, literature supports adoption of long shifts to reduce the number of nursing shifts and handovers in an effort to curb nursing staff shortages (Saville et al., 2020).

Intrinsic issues including fatigue, patient encounter and demotivation were identified as major barriers to effective nursing handover. Motivation was lacking due to lengthy delays in salary payments as reported by the participants. In a study to assess lack of motivation among health care providers, inadequate pay and resources were found to be key factors (Ogbeivor, 2021). While the study did not explore the aspects of quality control in the institution, the participants expressed perceived inadequacies in supervision of handover and nursing management's role in ensuring effective handovers. Enforcement of handover policies, consistent handover audit and feedback was lacking. According to Wanigasinghe (2016), patient safety is compromised due to non-adherence to handover guidelines in spite of their existence. Junior staff need encouragement to

perform handover under supervision by a senior member who can provide feedback (Manias et al., 2016). Continuous appraisal is critical in ensuring that changes in handover result in advances in patient wellbeing, organizational efficiency and staff satisfaction (Clarke & Persaud, 2011).

Theme 4 underscores the nurses' perceptions on the road map to improve the quality of nursing handover or at least maintain the status quo for the aspects of the handover that are desirable. Education on handover, introduction of a standard handing over tool and team approach in handing over, enhanced quality control and addressing nursing shortage are the prominent interventions perceived to improve the handover. Throughout the study, the study participants expressed the need for education on nursing handover across the nursing profession in form of CMEs to streamline handover process. Training combined with a redesigning of the local practices that inhibit handover process are effective interventions for optimal patient handover (Chien et al., 2022). Benchmarking in CCUs of private hospitals was borrowed from the nurses' handover experience in private hospitals and was deemed better. This was vouched as an intervention to improve handover practice in the unit. While evaluating professionals on the use of ISBAR, Burgess et al. (2020) insisted on the need for adequate training of health care professionals before introduction of handover tools. The nurses unanimously proposed the introduction of a standard handover tool that would harmonize handover content and ensure consistent information exchange. Vast literature points out the essence of handover standardization. Use of standardized tools for shift-shift nursing handover process allows nurses to conscientiously exchange pertinent information essential for continuity of patient care (Pun, 2021).

Involvement of other professionals in the handing over also featured as an intervention to promote transfer of patient information where participants suggested a formal holistic handover consisting all professional involved in patient care. Redley et al. (2017) found teamwork and inter-professional interaction as a requisite for effective handover practices. The participants also perceived an enhanced supervision at the departmental level as necessary to ensure that the handover meets the set standards while serving the intended purpose of transfer of adequate patient information. Punctuality and compliance to handover policies were the strategic supervisory interventions. While studying the role of unit managers on nursing work performance it was found that there is significant association of nursing functioning and performance with the leadership role of the unit manager (Patarru' et al., 2020). Further on quality control, the participants suggested continuous and consistent handover audits with timely feedback for improved handover practices.

Establishment of handover monitoring and evaluation teams is necessary to address handover challenges (Gunawan et al., 2019). Improving the nurse-patient ratios through employment of more staff and timely payment of salaries were prominent strategies fronted by the participants to ease fatigue, workload and demotivation. In a study on the link between quality of nursing handing over and job satisfaction, it was recommended that managers should take actions to uphold job satisfaction and consequently improve the quality of the nursing handover (Wang et al., 2021). In light of the perceived interventions to improve nursing handover, majority of the nurses pointed out that the crux of improved nursing handover is improved quality of patient care and sense of self accomplishment among the nurses.

5.0 Conclusion

There are pertinent implications in the findings of this research for critical care nurses, nurses in other departments and policy makers. The resultant implication for each group of stakeholders promotes the adoption and formulation of effective handover practices and consequently enhanced quality of patient care through transfer of adequate patient information and sense of self-accomplishment among nurses.

6.0 Recommendations

Based on the study findings the handover process would benefit from enhanced adherence to the existing handover policies. Handover training targeting nurses in other departments would promote communication of patient information between critical care unit and other departments. Periodic audits of the handover documentation and process with subsequent feedback would be a control for evaluation of the handover. Further, addressing scarcity of resources and implementing the nurses' perceived strategies for improved handover would ensure a seamless handover practice in the unit.

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