Original Article

doi:10.31674/mjn.2024.v16i02.001

MJN

Clinical Handover among Nurses in an Emergency Setting: Facilitators and Barriers

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ABSTRACT

Background: Clinical handover in emergency settings is a crucial and complex process involving transferring patient care responsibilities and information. **Objective:** It identified the facilitators and barriers to clinical handover among nurses in an emergency setting. **Methods:** This descriptive qualitative study involves fourteen nurses from the emergency department of a teaching hospital in the East Coast region of Malaysia. The data was collected from one-on-one interviews using a topic guide. **Results:** The study acknowledged seven facilitators: learning from various approaches, the information that needs to be relayed, the accuracy and precision of the information, the clinical handover at the bedside, the documentation process of the clinical reports, having a good practice of punctuality, familiarise with the use of technology, and six barriers; a limited number of electronic devices, the handover happened away from the patients, heavy workloads occur concomitantly, a lack of self-discipline coincide with the time for handover, and illegible writing skills and inappropriate documentation. It led to themes such as communication effectiveness and commitment to patient safety, teamwork and practices leading to continuity of care, and overcoming challenges while handover reports. **Conclusion:** Clinical handovers are a vital component of patient care, and they require effective communication and commitment to patient safety, teamwork, and practices, leading to continuity of care and overcoming challenges while handling reports. The administrators shall address the concerns raised by these nurses, as adhering to best practices can help reduce errors and improve the overall quality of care provided.

Keywords: Clinical Handover; Emergency Department; Facilitators and Barriers; Nurses

INTRODUCTION

Emergency Departments (EDs) are dynamic and fast-paced; healthcare professionals must respond quickly to diverse medical situations. The ED has a diverse range of patients, emphasising the variety of medical conditions and demographics. This highlights the ED's dynamic and fast-paced nature, where quick decision-making and rapid responses are essential. Hence, effective communication within the team and with other departments during clinical handover is paramount, reflecting commitment to patient advocacy and timely and comprehensive urgent care delivery.

Clinical handover is when one or more professionals are given professional accountability and responsibility for patient care (Desmedt *et al*., 2021), and nurses transfer critical patient care information to

Received: February 13, 2024 Received in revised form: June 28, 2024 Accepted: July 1, 2024

oncoming shift nurses (Xiaoling *et al*., 2019). Clinical handover in an emergency setting is a critical process that ensures the continuity and safety of patient care. It requires setting the stage for effective communication while ensuring the swift and accurate exchange of critical patient information.

As a vital component of hospital workflows and procedures, clinical handover is a worthwhile endeavor, and it is the most crucial action in ensuring patient care continuity. Despite its importance, clinical handover is often poorly performed, with potentially severe consequences for the patient (Burgess *et al*., 2020). Hence, this study aims to identify the facilitators and barriers during the clinical handover in an emergency setting, considering the nature of this department as a fast-paced environment and the unpredictable nature of cases requiring quick decision-making.

METHODOLOGY

Study Setting, Design and Sample

Using a purposive sample technique, a descriptive qualitative study was carried out among emergency nurses who work in the department. This study recruited about fourteen volunteers working full-time at one teaching hospital in the East Coast region. The study participants were not those on formal leaves, such as study leaves or maternity/paternity leaves.

Materials

The primary technique of gathering data was a semi-structured interview with open-ended questions. A qualitative researcher with extensive experience initiating interview topic guides for qualitative studies created the topics guide for the interview in English. Questions on the participants' experiences with the handover report and suggestions, opinions, and expectations for appropriate practice were asked throughout the interview.

Data Collection

Data was collected over seven months, from March 2022 until September 2022. This study collected data through a one-on-one interview using a topic guide. Interviews were conducted in English and Malay and audio-recorded, each session being approximately 30 minutes on average.

Data Analysis

The interviews' audio recordings were transformed into textual form after being repeatedly listened to, and the resulting text was then thematically analysed. The researcher could recognise, examine, organise, explain, and report the themes based on the data set using Braun & Clarke's (2006) thematic analysis method. Following that, it was analysed before being divided into valuable themes. The pertinent elements of the data were then coded to ensure they matched the study's subject. Other researchers worked as peer reviewers and reviewed the study process and data analysis to ensure consistent findings.

Trustworthiness

This study applied the trustworthiness proposed by Lincoln and Guba (1985). The researcher's team member served as a peer reviewer (investigator triangulation) for this work, checking the research methodology and data analysis to ensure the conclusions were reliable. Additionally, reflexivity was a researcher's constant reminder to remain impartial during the research process.

In addition, each interpretation and result are compared with the previous findings from the data analysis as part of a continuous comparison process. The information gathered through interviews, and the report for the handover could guarantee the validity of the conclusions. In this study, the researchers gave a thorough account of descriptive information, including the setting, sample, sample size, sample strategy, inclusion and exclusion criteria, interview procedure and topics, changes in interview questions based on the iterative research process, and excerpts from the interview guide.

Ethical Consideration

This study got ethical approval from the International Islamic University, Malaysia, Research Ethics

Committee (IREC), Malaysia with reference number, IIUM/504/14/11/2/IREC 2021-156 on 25th April, 2022.

RESULTS

This study identifies the facilitators and barriers to clinical handover practices in the emergency department. These nurses, who are department residents and currently available during the study period, value the chance to exchange information and updates on patients' status and are aware of how crucial clinical handovers are to protecting patient safety. When the handover is well-structured and allows for effective care delivery and clear communication, nurses may feel satisfied, enabling them to better support the patients.

Facilitating Factors

From the findings, a few factors were identified that could facilitate the process of clinical handover among these nurses working in an emergency department: 1) learning handover from various approaches 2) the information that needs to be relayed; 3) the accuracy and precision of the information; 4) the clinical handover at the bedside; 5) the documentation process of the clinical reports; 6) having a good practice of punctuality; 7) becoming familiar with the use of technology.

1) Learning handover from various approaches

A few nurses mentioned that they had learnt to hand over reports during their nursing school years.

"Initially, I learned how to communicate effectively during my clinical studies. During that period, we interacted with the staff nurses, and as we transitioned into our working days, we gradually learned how to transfer reports to our colleagues and to the doctors. From there, we learnt and improved our way and skills in passing over." (SN 4)

Some participants mentioned that they learned clinical handover methods during their working days.

"The staff received formal training in clinical handover after a considerable amount of time." (SN 1)

Few nurses believed that the tagging method benefitted the learning handover process.

"I guess when I was a practical student, we followed staff for report handover, and it was all informal." (SN 11)

They also learned from formal sessions organised by the nursing management.

"We have formally invited a guest from HTAA [Hospital Tengku Ampuan Afzan] to the ED to present the clinical handover report. I believe the sister from HTAA performed well. She attended a one-day training course for clinical handover reports for ED staff around three to four years ago. Indeed, it was the final formal event of its kind." (SN 14)

2) The information that needs to be relayed

It was mentioned that the details of the information should be relayed to the colleagues on the following shift.

"First, we start with the patient's details. The complications, demographics and all, then next, why the patient comes in ED, the patient's progress in the ward, those are the things that we will pass over, then the plan for the patient and what the next shift should do to the patient." (SN 5)

"Other than that, some participants mentioned that they passed the patients' complaints and underlying diseases of the patient." (SN 8)

Some participants added that they will also include in their report the procedures they have performed and the pending procedures that must be performed on the patients.

"The patient's name, age, complaint, and underlying disease, and then if the patient is in the yellow zone, SARI [severe acute respiratory infection], therefore, we inform the parents of the patient of the treatment that we have given to the patient and the MO's [Medical Officer] plan for the patient so that the people in the next shift are well prepared." (SN 4)

For the management, the participants added that they include the investigation results in the report.

"If handling the patient, usually there are things that we missed out on doing, so we pass the pending procedures to the next shift. For example, the required x-ray, urine, etc., are different from the patient's diagnosis." (SN 6)

3) The accuracy and precision of the information

These nurses mentioned that providing accurate and precise information makes the handover smooth and efficient.

"So, we wanted everything explained in detail. I wanted to know who the patient was and what actions had been taken. The notes and reports were written tally both in the system and on board. Moreover, then the doctor's plan, everything, both required and pending, just in case we missed anything." (SN 8)

Some added that they expect to receive complete information from the previous shift.

"This implies that everything they communicate is crystal clear. They should clearly communicate what they've written, what actions they've taken, and all necessary information to prevent confusion. For instance, if the staff administers medication without informing us or recording it in the medication chart, it could lead to confusion later on." (SN 7)

4) Clinical handover at the bedside

The majority of them agreed that delivering the handover in front of the patient works best.

"I believe it is better to conduct passover face-to-face since we can directly observe the patient." (SN 5)

"I think it is better if we pass and receive the report in front of the patient, and we have already done that, so I believe there is no issue." (SN 12)

5) The documentation process of the clinical reports

These nurses concurred that the process of documenting clinical reports is essential during the report delivery.

"I think the documentation is important. If the documentation is good, then it will make our work easier." (SN 11)

The participants wish to have an advanced documentation system that will make the handover more efficient in the future.

"The hospital utilises both handwritten and computerised systems. This issue always arises when we perform the same task twice, using different methods. It is preferable to establish a system and adhere to it. However, the problem is, we have limited numbers of devices, so we have to share where sometimes many people want to use the devices simultaneously." (SN 8)

6) Possessing good punctuality habits

Some stated that the handover process can be effective with good individual discipline.

"The staff, both those passing and those receiving, should be prepared to hand over. Be punctual so we can move smoothly and avoid wasting time." (SN 2)

7) To familiarise with the use of technology

Besides, using technology such as computers or other technological devices is crucial.

"Oh! Indeed, I believe that technology plays a significant role in this situation. Both are important." (SN 5)

Perceived barriers

Based on the data findings, the following six barriers were identified: 1) A limited number of electronic

devices; 2) The handover occurred away from the patients; 3) Heavy workloads occur concurrently; 4) A lack of self-discipline; 5) Coincidence with the handover time; and 6) Illegible writing skills and inappropriate documentation.

1) Limited number of electronic devices

According to the data findings, a few individuals believed that a limited number of electronic devices could impact the flow of clinical handover.

"Because we are using the same board as the doctor here, we cannot pass over until they are finished." (SN 10)

"When all the computers are occupied by the doctors, we do not have computers to refer to and write the report directly." (SN 13)

2) The handover happened away from the patients

During the handover, the participants stated that inappropriate treatment would occur when the nurses were away from the patients.

"Because sometimes staff only pass the report at the counter and don't know the patient's condition." (SN 6)

"If we are far from the patient, sometimes we tend to miss a few things. When we present the report to the patient, we can directly observe the procedures performed for them." (SN 10)

3) Heavy workloads occur concomitantly

The majority of participants concurred that a heavy workload with multiple simultaneous admissions would disrupt the handover process.

"The causes, I think, if there are many patients. I know we cannot predict and prevent the number of patients, but that will be the factor, as sometimes we do not have much time to write or pass reports. We even extended our working hours after the shift to prepare the report." (SN 9)

4) Lack of self-discipline

The participant also mentioned that punctuality and discipline among all staff members can minimise interruptions.

"One of them, I believe, is related to time management. Those who arrive late can disrupt the handover flow, especially when we have a large number of patients." (SN 1)

"The staff, both those passing and those receiving, should be prepared for Passover." Be punctual so we can move smoothly and avoid wasting time." (SN 2)

There were reports of some nurses delaying their tasks and transferring them to the next shift, even though they completed them during their shift.

"My hope is that the previous shift completed all necessary tasks for the patients during their shift without any delays." If there are still any tasks that need to be completed, we hope that they will be simple procedures, which will allow us to concentrate on writing the report more efficiently." (SN 11)

DISCUSSION

This qualitative study concentrates on the facilitators and barriers during clinical handover practices in the Emergency Department (ED) of one teaching hospital in the East Coast region. Emergency departments are highly dynamic and stressful care environments that may affect the healthcare provider and patient outcomes (Schneider, Wehler & Weigl, 2019). ED has extraordinary and unique challenges compared to other departments as the staff works under pressure and length of stay that may result in a rush for care transitions and handover, high patient turnover and overcrowding, and lastly, the patients in ED experience frequent occurrences of movement where they need to be transferred to different departments within a short time (Cross, Considine & Currey, 2019). Thus, many factors can influence clinical handover practices, facilitating factors

and barriers. It can be classified into 1) effectiveness of communication and commitment to patient safety, 2) teamwork and practices leading to continuity care, and 3) overcoming challenges while handover reports.

Effective Communication and Commitment to Patient Safety

Effective communication is crucial for thorough clinical handovers in ED, where clinicians from several specialities sometimes work independently yet have complementary roles in providing care to a single patient. The importance of clinical handover communication for patient safety in EDs is well-recognised and researched (Redley *et al*., 2017; Grover, Porter & Morphet, 2017; Weaver, Hernandez & Olson, 2017). In recent years, patient safety has picked up momentum. In addition to being one of the leading causes of the global illness burden, patient harm is linked to increased healthcare expenses for the hospital and society and detrimental effects on medical workers (Slawomirski, Auraaen & Klazinga, 2017). Ineffective communication is a well-recognised contributor to hospital patient harm (Eggins & Slade, 2015; Lingard *et al*., 2004) and could risk patient safety (Redley *et al*., 2017). Standardisation of clinical handover may reduce sentinel events due to inaccurate and ineffective communication (Ghosh, Ramamoorthy & Pottakat, 2021). Performed well, the clinical handover should ensure that lapses in the continuity of patient care, errors and harm are reduced in the hospital or community setting (Burgess *et al*., 2020). A study by Chien *et al*. (2022) revealed that the staff can benefit greatly when the training enhances communication and clinical handover skills. They agreed that the relationship and sound environment of the workplace influence the communication process between healthcare workers. However, some participants suggested that communication skills be polished through training or improved individually so clinical handovers can be passed accurately and received precisely simultaneously.

Most participants agreed that using ISBAR mnemonics (Introduction, Situation, Background, Assessment, Recommendation) and other tools has eased the clinical handover process during shift exchanges. ISBAR is a tool for identity, situation, background, assessment, and recommendation (Burgess *et al*., 2020) and has been widely used by healthcare personnel, especially in ED, during handover reports. Healthcare personnel worldwide agreed that ISBAR helped make clinical handovers more structured and precise (Fealy *et al*., 2019). Although ISBAR is shown as an effective communication tool for organised handover in many studies, nurses' comprehension of the tool varies, which could lead to differing opinions (Pun, 2023). Some participants stated that not all staff have been complying with the ISBAR tool during handover, and some shared that they sometimes do not comply with the ISBAR tool due to time constraints as the ISBAR tool needs to be written accordingly and may not be applicable in a hectic environment.

Teamwork and Practices Lead to Continuity of Care

The present handover only addressed the issue of staff members being fully informed about the patients they oversee. A study by Cross, Considine, and Currey (2019) also stated that the most effective method for clinical handover remains uncertain in maintaining the continuity of patient care since there will always be barriers at every emergency department with different environments and places.

In this study, the participants learnt about clinical handover through various approaches, including informal learning at their workplace or nursing schools. Some attended seminars and training at least once during their study years or working period. Bigham *et al*. (2014) mentioned that the clinical handover learnt by healthcare personnel before graduation is further developed through their practices later. Attending training and seminars allows them to gain information that is very useful in their practices and increases confidence levels during patient management. A study by Chlan *et al*. (2005) mentioned that a group of nursing students reported significant increases in their confidence levels after the experiential sessions. Each staff then depends on their judgement and training while practicing clinical handover. Besides, committing to learning could improve patient safety (Twigg & Attree, 2014). It can be demonstrated that formal training is equally essential to learning through experiences (Gandhi *et al*., 2018), which, with both learning methods, will then lead to efficient clinical handover practices. Organisations, including universities and hospitals, must invest in the education and training of health professional students and health professionals to ensure good quality handover practice (Burgess *et al.*, 2020). Two studies mentioned that despite being one of the most essential patient-focused processes, there is limited formal education in preparing healthcare personnel for clinical handover practices (Owen, Hemmings &

Brown, 2009; Scovell, 2010). This raises concerns about the effectiveness of clinical handover practices among the staff, especially in the ED, as it is known as a fast-paced department that provides urgent care with an unpredictable nature, which might lead to miscommunication and mismanagement of the patient (Manias *et al.*, 2015). Traditionally, clinical handovers occur among healthcare professionals, but there are situations where patients may be present or choose to be involved in the handover process. However, directly involving the patient's immediate presence during a clinical handover includes the patient in the communication and information exchange that occurs when transferring care responsibilities from one healthcare provider or team to another. A review by Tobiano *et al.* (2018) revealed two approaches to handing over reports: nurse-centred and patient-centred.

In a study conducted by Oxelmark *et al*. (2020), it was found that nurses tend to be away from their patients while handing over the reports, which contradicts the demands of the patients. In contrast, a patient-centred approach recognises the importance of including the individual in discussions about their care, treatment, and ongoing management (Coulter & Oldham, 2018). Conducting nursing handovers at the bedside with patient participation has emerged as a strategy to improve both the quality of the handovers and patient-centredness of care (Bruton *et al*., 2016). In such cases, healthcare providers share relevant information directly with the patient, ensuring transparency and allowing them to participate in decision-making actively.

Some nurses in the focus group discussion reported feeling uncomfortable communicating in front of patients and companions (Redley *et al*., 2017). Consistent with this finding, the investigators observed specific nurse actions that intentionally disregarded feedback from patients or companions during transitions. Finally, the participants mentioned they are mostly satisfied with the communication between all healthcare personnel in the ED, including the communication with healthcare personnel throughout the hospital from other departments.

Overcoming Challenges While Handover Reports

The findings showed that clinical handover practices should be emphasised, as it is essential for providing accurate and precise information among emergency healthcare personnel (Manias *et al*., 2015). On the contrary, poor clinical handover causes significant incidents that could affect the patient's condition. The information included in the clinical handover is usually brief and related to the patient, and it is required for the healthcare personnel to provide suitable interventions. Chien *et al*. (2022) described that healthcare personnel collect information such as chief complaints, presenting illness and more from patients who come into the ED. Most of the participants agreed that aside from the patients' essential background, they would expect as much detail as possible from the patient that might be useful to the management provided by the healthcare workers.

In this theme, the participants explained the information they used to convey during their daily clinical handover to the next shift. From the results presented, the participants mainly described how they delivered similar points in their handover reports, such as patients' related information, the status and conditions of the equipment and technology used during their shift, medical plans and the management they provided for the patient throughout the shift. The participants expressed the importance of clinical handover through the mentioned information in the handover report. It was mentioned by Weston *et al*. (2022) that handover is a living document that emerges from the information obtained not only during the exchange of shifts but also throughout the patient's management overall.

It is essential to identify the information provided by the healthcare personnel to their colleagues during the shift change. This is to ensure the information delivered is reliable, precise, and accurate since the information provided will influence the management of the patient. Clinical handover functions as responsibility and accountability for care continuity from one healthcare personnel to another (Makkink, Stein & Bruijns, 2022). Therefore, the information contained in the clinical handover needs to be as precise as possible since it is the responsibility of all staff working as healthcare providers. It is also explained by the healthcare workers the importance of delivering precise and complete information for every handover since the information provided will affect the continuity of care for the patients later. Delivering accurate information can prevent treatment errors and delays in patient management (Weston *et al.*, 2022). The information transfer can be summarised by using an outline of the events that happened to the patient, the management given, and the current state. However, some consider the information transfer to include the patient's needs prospectively (Fealy *et al*., 2019).

The participants in a study by Fealy *et al.* (2019) believed that the handover report is an important document that acts as a communication medium between healthcare personnel in maintaining continuity of care. Although the patient's related information is crucial for the healthcare personnel in providing care for the patients, the status and conditions of the equipment used for the management are no less important. Healthcare personnel must report any malfunction, insufficient number of or faulty equipment or facilities they used while providing care. This ensures that the care process is not interrupted and that the well-being of the patient and the staff is taken care of. In addition, the staff attitudes will very much influence the working environment and the attitude of the junior staff in terms of the development of clinical confidence in their practices (Weston *et al*., 2022). There were some initiatives where the participants highlighted that the staff should have the initiative to learn more on their own, especially the medical terms and abbreviations commonly used among healthcare providers, to ease communication among them. This can also be associated with the staff having some expectations and knowledge before the clinical handover session, which will reduce interrupting questions during the clinical handover (Javidan *et al*., 2020).

Since the healthcare workers in the hospital must face many workloads daily within a hectic and unpredictable ED environment, most participants emphasised that it would be better if more staff were allocated to every shift. Adding the staff requests not only eases all tasks and the current workloads, but more workforces can also prevent medical and human errors, especially in passing accurate information and details to the patient's management. Many studies have proven the effectiveness of bedside handover in healthcare settings. A study by Campbell and Dontje (2019) stated that the bedside handover effectiveness should not be underestimated when a good relationship between the patients and healthcare workers can be enhanced through this method while promoting safety in patient care.

This handover method improved the accuracy of the information passed among the staff while building a good bond between the healthcare personnel and the patients during the handover process. When patients know and understand the treatments and management provided, they can get involved in the treatment provided for them, thus enhancing their trust in the healthcare personnel. The nurses also believed bedside handover helped reduce poor patient outcomes due to incomplete reporting. A few participants also expressed the benefits of a tagging system among the new and senior staff to give the results and benefits of learning as training does. According to Weston *et al*. (2022), the junior nurses in their study know the importance of observing and attaching to the seniors in ensuring effectiveness while conducting the clinical handover. Therefore, the senior nurses play important roles by demonstrating how to conduct handovers. The data collected also revealed that healthcare personnel need more advanced electronic systems in the department to improve clinical handover and all medical tasks overall. According to a study by Sun, Shih, and Cheng (2018), the elapsed time for surgical handover decreased from 10.5 to 5.4 minutes when they used an electronic system. The study says this advanced technology will save more time and result in better and faster patient management.

CONCLUSION

This study revealed that the healthcare providers in ED have various experiences during clinical handover, and most participants shared that they had never attended any training or seminar specifically for clinical handover before. Most of the participants stated that they had learnt the method of clinical handover through their practical years, tagging system and previous working experiences informally. In addition, most of the participants expressed that the factors interrupting the clinical handover are mostly inevitable due to the nature of ED, which has a chaotic and fast pace, so they have been used to the interruptions.

For the facilitating factors, the participants develop suggestions to improve the clinical handover. The study data exposed the resources and supports the participants thought would help improve clinical handover. The ideas of the participants ranged from the self-initiative of the staff themselves, going through the system and technology of the hospital, the addition of staff for each profession per shift and the official seminars and training that should be explicitly provided with the topic of clinical handover for all staff, especially in ED. They believed their suggestions would be very beneficial for improving clinical handover overall, enabling the staff to provide the best patient care and enhance the quality of services to better the patient's health.

The findings from this study are currently being implemented stage by stage to improve communication

while handing over clinical information between ED staff and other departments or units. Perhaps future studies could focus on the effectiveness of implementing the findings.

Limitations

This study was carried out in the Emergency Department (ED), without the involvement of other units or departments.

Conflict of Interest

The authors declare that they have no competing interests.

ACKNOWLEDGEMENT

The authors extend their heartfelt gratitude to all study participants whose involvement was instrumental in achieving these findings. Additionally, they sincerely thank Sultan Ahmad Shah Medical Centre (SASMEC @IIUM) for its financial support. Special appreciation goes to Dr. Aida Nur Sharini Mohd Shah, Emergency Physician at SASMEC @IIUM, for her invaluable support and contributions that greatly contributed to the success of this study.

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