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PERCEPTIONS OF REGISTERED NURSES REGARDING NURSE-NURSE COMMUNICATION DURING BEDSIDE CLINICAL HANDOVER IN A PRIVATE HOSPITAL IN MPUMALANGA PROVINCE

by

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ABSTRACT

Aim and objectives

The aim of the study was to obtain the perceptions of registered nurses regarding nurse-nurse communication during bedside clinical handover in a level three private hospital of Mpumalanga province. The objectives were to obtain the participants' demographics, their perceptions regarding the clinical bedside handover and the communication during the clinical bedside handover. Recommendations for clinical practice and education were provided thereafter.

Background

Communication during bedside clinical handover is described as the transfer of the patient, information, equipment, professional responsibility and accountability from one professional person or group to another. Effective communication during bedside clinical handover is vital in providing high quality care. Failure to communicate essential patient information by the registered nurse can lead to undesirable adverse effects.

Methods

A quantitative descriptive design was used to obtain an answer to the research question. Total population sampling, due to the relatively small population, was used to single out registered nurses working in nine units of the selected hospital. A structured questionnaire was used to collect data and frequency distributions and descriptive statistics with graphs and Fisher's exact test were used to analyse data. Testing was done at the 0.05 level of significance. Cronbach's alpha was computed to assess internal reliability.

Results

Four major results emerged from the data:

- Timing of the handover process remains a challenge to the quality of communication during bedside clinical handover.
- Lack of confidence and experience of the registered nurse present a threat to the quality of communication during bedside clinical handover.
- Team dynamics including the use of indigenous language during bedside clinical handover resulted in lack of teamwork and trust, posing a threat to the quality of communication during bedside clinical handover.
- Task factors, environmental factors, organisational factors and nurse factors affects the quality of communication during bedside clinical handover.

Conclusion

The results of the study will be communicated to the management team including the nursing staff of the selected hospital under study. Challenges and threats identified related to the quality of bedside clinical handover will be used as a management tool for quality improvement.

Key words: *Communication, Bedside Clinical Handover, Nurses, Perception*

DECLARATION

I, Eva Otshepeng Mhlongo, declare that the dissertation titled

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is my original work and it has not been submitted before for any degree or examination at any other University or institution, I further declare that all the sources that have been used or quoted have been acknowledged by means of approved Harvard referencing (2006).

Signed at Nelspruit on this 17th day of February 2020.

Signature EO Mhlongo

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To God be the glory!

DEDICATION

I dedicate this dissertation to:

- My family as a token of gratitude for their encouragement, love, understanding and support in making my study a success.

- My husband, Musa Mhlongo, for his love and support, allowing me to be absent in pursuit of my career.

- My children, Nokubekezela, Omphile and Tshiamo, for their motivation, love and understanding. I cannot trade them for anything in this world! It was not easy leaving them for some weeks, though they never complained, but instead kept me in their prayers.

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CHAPTER 1: BACKGROUND TO THE STUDY

1.1 INTRODUCTION AND BACKGROUND

Effective communication plays a vital role throughout a patient's entire stay in hospital as it enhances a positive patient experience and a large portion of the responsibility falls on nurses as they interact continuously with their patients. Nurses have the responsibility of ensuring that information regarding these patients is shared amongst themselves and other healthcare professionals during handing over periods. In the hospital under study, registered nurses conduct handover at the bedside to transfer patient information to staff on an incoming shift. During hospitalisation, patients undergo enormous stress and it is important that nurses communicate clearly to alleviate their stress. Therefore, good written and verbal communication in nursing is essential to ensure that comprehensive care is rendered to patients.

Bedside clinical handover, also referred to as a handoff or shift report, has been described as "the transfer of the patient, information, equipment, professional responsibility and accountability from one professional person or group to another" (Gardiner, Marshall and Gillespie 2015:227; Anderson, Malone, Shanahan and Manning 2014:2). Bedside clinical handover practices are recognised as being an essential component in the effective transfer of information and accountability with its primary function being communication of clinical information about patients (Wilson 2011:22) and is critical to patient safety (Manser and Foster 2011:181). Face-to-face bedside clinical handover has been identified as the only nursing report method that involves patients, their family members and both off-going and on-coming nurses (Dorvil 2018:22). The Australian Government also promotes clinical handovers at the patient bedside as ideal nursing practice and considers this approach essential to the functioning of many hospitals throughout their country (Slade, Murray, Pun and Eggins 2018:1).

Street, Eustace, Livingston, Craike, Kent and Patterson (2011:138) reported that handover at the bedside saves time, enables the nurse to put a face to the name, ensures accurate identification of the patient, allows the incoming nurse to ask questions and gives the nurse an opportunity to start with patient assessment. Effective communication (written and verbal) during clinical handover, at the patient's bedside, is essential in ensuring safe and quality patient care. According to Flemming and Hübner (2013:8), the benefits of bedside clinical handover include both retrospective information, i.e. 'what has been done' as well as prospective information, i.e. 'what is planned', 'what is pending' and 'what might happen'.

Furthermore, bedside clinical handover has been evident in increasing client satisfaction, creating trust between the nurse and the client, reducing communication errors and promoting

accountability, teamwork and respect among staff (Vines, Dupler, Van Son and Guido 2014:166; Wakefield, Ragan, Brandt and Tregnago 2012:243; Sand-Jecklin and Sherman 2013:187). However, in their study, Street et al. (2011:136) reported that 84% of nurses found it difficult to understand and retain information exchanged when handover occurred away from the patient's bedside.

The World Health Organization (WHO) identified communication during patient care handovers as a high priority risk area (Leotsakos, Zheng, Croteau, Loeb, Sherman, Hoffman et al. 2014:109). Pitfalls of poor communication are seen by the Australian Council for Safety and Quality in Health Care (2005 cited in Mannix, Parry and Roderick 2017:216) as a delay in medical diagnosis, ineffective or wrong treatment and an increase in length of stay. Ineffective written and verbal communication regarding patient care amongst nursing practitioners is a patient safety risk with dangers of discontinuity of care, adverse events and legal claims of malpractice (Wong, Yee and Turner, 2008:3). Poor communication during bedside clinical handover has been identified as a research priority for improving patient safety in developed and developing countries (Ding, Bell, Rixon, Rixon, Addae-Bosomprah and Simon 2016:1). Therefore, poor communication amongst nurses leads to preventable medical errors, high nurse turnover rates and low morale.

The fundamental purpose of bedside clinical handover is not only information transfer, but also that it must be accurate and complete enough to allow nurses to plan for care efficiently and effectively (Staggers and Blaz 2013:249). Nurse leaders play a critical role in implementing processes that help to clearly define the transfer of responsibility from one healthcare provider to another and to standardise the communication process and allow for an interactive exchange between the parties involved.

1.2 PROBLEM STATEMENT

Currently, clinical handover of patients in the private hospital selected for the study happens at the bedside during change of shifts between day and night staff. The researcher observed that communication during bedside clinical handover is not interactive and does not provide the nurses with a clear picture of their patients' conditions. The outgoing nurse handing over during change of shift, does not always relay all the important information such as diagnostic results or changes in a patient's condition which afford the nurses an opportunity to ask questions. Due to the poor communication practices observed, nurses are not in a position to act proactively on identified abnormalities.

More than 40% of the adverse events occurring in the designated hospital could be due to ineffective communication during bedside clinical handover (Mediclinic Nelspruit, 2017). The number of adverse events was supported by the outcome of an audit of patients' records that indicated that deterioration in patient progress was often not communicated by the nurse to the treating doctor as it was poorly documented. This contributed to the hospital not reaching the targeted score of 80% for the provision of safe patient care. Adverse events such as patient falls, incorrect administration of medication, failure to report deterioration in a patient's vital signs etc. are amongst events that may imply that communication, both verbal and written, between nursing team members in this hospital is not clear enough to provide staff with the necessary insight into the patients' condition (Mediclinic Nelspruit, 2017). According to Eggins and Slade (2015:197), poor bedside clinical handover amongst nurses often leads to undesirable adverse events and it is a major contributor to patient harm in hospitals. This is further confirmed by Sherman et al. (2013), as cited in Mannix, Parry and Roderick (2017:216), who stated that poor communication can also lead to a lack of trust from patients, frustrations, conflict and breakdown in the multidisciplinary team approach, leading to potential breaches in safety.

To be able to improve the communication between nurses during bedside clinical handover, the researcher deemed it important to obtain the perceptions of registered nurses (RNs) regarding the communication between nurses during bedside clinical handover.

1.3 RESEARCH QUESTION

The researcher formulated the following research question:

- What are the perceptions of registered nurses regarding nurse-nurse communication during bedside clinical handover?

1.4 AIM AND OBJECTIVE

The aim of the study was to describe the perceptions of registered nurses regarding nurse-nurse communication during bedside clinical handover in a private hospital in Mpumalanga province.

The objective of the study was to describe how registered nurses in selected units in a private hospital in Mpumalanga province perceived nurse-nurse communication during bedside clinical handover.

1.5 SIGNIFICANCE OF THE STUDY

Recommendations based on the findings of the study may contribute to an improvement in the current bedside clinical handover practice in the nursing units of the designated hospital, ultimately leading to less adverse events. Furthermore, it may lead to communication that is more effective between nurses, patients and the multi-disciplinary team members, resulting in a positive outcome of the clinical quality of patient care. These bedside clinical handover practices could be implemented into hospital policies and proposed to other hospitals and training institutions to adopt.

1.6 DELIMITATIONS AND ASSUMPTIONS

1.6.1 Delimitations

The study was limited to the perceptions of registered nurses regarding communication between nurses during clinical handover at the bedside with special focus on the registered nurses who are working in a level three private hospital in Mpumalanga province.

1.6.2 Assumptions

The study was based on the following assumptions:

- Participants would answer truthfully as anonymity would be ensured by not requiring them to write their names on the questionnaire.
- The researcher's values would not influence the research as a structured questionnaire would be used to collect data and descriptive statistics were used to examine the evidence dispassionately.
- The sampling method was appropriate to the study. Hence, it was assured that the registered nurses recruited for the study had all experienced the phenomenon of interest (communication during bedside clinical handover).

1.7 DEFINITION OF KEY TERMS

Communication - Kourkouta and Papathanasiou (2014:65) define communication as the exchange of information, thoughts and feelings among people using speech or other means. It is a two-way process of reaching mutual understanding in which participants not only exchange information, but also create a shared opinion (Vermeir, Schillemans, Jolie, Leune, Vandyck, De Smet et al. 2010:3). For the purpose of this study, communication refers to the sharing of clear, concise and comprehensive information between nurses about their patients' conditions during bedside clinical handover.

Bedside clinical handover - Researchers see clinical handover as the giving or 'handing over' of comprehensive information from one nurse to the other related to patient care. Gardiner, Marshall and Gillespie (2015:227) describe bedside clinical handover as "the transfer of the patient, information, equipment, professional responsibility and accountability from one professional person or group to another". For the purpose of this study, clinical handover refers to the transfer of responsibility and accountability of clinical information (both written and verbal) from one group of nurses to another during the change of shift at the bedside of patients.

Nurses – Section 31(1) of the Nursing Act (South Africa 2005) defines a nurse as a person registered in a category under section 31(1) in order to practise nursing or midwifery. For the purpose of this study, nurses are registered nurses, involved in the bedside clinical handover.

Perception – "Perception is our sensory experience of the world around us and involves both recognizing environmental stimuli and actions in response to these stimuli." (Cherry 2015). For the purpose of this study, perception refers to the process of how registered nurses make sense of the communication during bedside clinical handover and how they respond to it.

Level three private hospital – Hospitals in the private hospital group are ranked in four different levels, from level one (small number of beds) to level four having more than 350 beds and the revenue generated (Mediclinic Southern Africa Nursing Structure, 2020). For the purpose of this study, a level three private hospital has a total of 314 beds with different disciplines such as Cardiology, Urology, Gynaecology, Medical, Surgical, Paediatrics, Oncology, Obstetrics, Neuro-Orthopaedic, High Care, Adult Critical Care, Neonatal Critical Care, Operating Theatres, Cath Lab and Emergency Centre and it is situated in Mpumalanga province.

1.7.1 Nursing, communication and handover in clinical practice

Nurses spend twenty-four hours with their patients and have a lot of information to apprehend. It is imperative to communicate effectively, verbally and in writing. According to Casey and Wallis (2011:35), information that is accessible, acceptable and accurate and that meets patient's needs, should be shared actively and consistently.

Safe patient handovers require that accurate, reliable and relevant information be unambiguously communicated through active listening and participation between healthcare providers. Bost et al. (2012), as cited in Anderson et al. (2014:3), claim that ineffective bedside clinical handover may be due to lack of active listening and lack of access to written communication. Capek, Pascarella and Wymard-Tomlison (2013:22) cited the following four reasons for ineffective handover communication: length of report, lack of policy and direction in

reporting, variability in individual nurse's ability to accurately give handoff and lack of a standardised format.

Referring to patients' records during bedside clinical handover is of utmost importance as it contributes to structured communication between nursing practitioners to ensure continuity of individually planned patient care (Björvell 2002:14). As patient records are legal documents, the principles of effective record keeping should always be followed when documenting patient care. What is documented provides evidence of what has been done and gives an idea to an individual concerning the medical condition of the patient. It can be used for future reference purposes and can be simultaneously distributed amongst multi-disciplinary team members involved in the care process (Vermeir, Vandijck, Degroote, Peleman, Verhaeghe, Mortier et al. 2015:1258). These active communication behaviours by the nurses can improve patient safety by detecting inaccurate assessment and action, thereby addressing diagnostic momentum and fixation bias (Rayo, Mount-Campbell, O'Brien, White, Butz, Evans, et al. 2014:484)

Changes in a patient's treatment and special requests from other health care team members are often not communicated. This leads to important information being missed, ineffective or wrong treatment and even an increase in the length of stay in the hospital (Australian Council for Safety and Quality in Health Care 2005). According to the Nursing Council of Hong Kong (2010), documentation is an accurate account of what occurred and when it occurred and therefore, findings should be clearly communicated during bedside clinical handover. In nursing practice, it is a common believe that 'if something is not written, it is not done'. Manser and Foster (2011:182) indicate that patient care forms an integral part of ineffective communication and ineffective communication is a contributing factor to adverse events that happen in the nursing units. Ferreira, Brásb and do Céu Barbieric (2016:332) opine that the quality of patients' information provided has been proven to enhance the quality of care the patients receive as well as to guarantee their safety. This is because information would be available to inform others and to subsequently aid appropriate decision-making concerning patient care.

Anderson et al. (2015:669) indicate that there have not been major changes in the way nurses are communicating the changes in patients' conditions during handover, thus making bedside clinical handover in the hospital an area of poor performance. They further indicate that poor communication might be due to patients' right to privacy and confidentiality that is a legal obligation and thus excludes patients to participate in decision-making concerning their care (Anderson et al. 2015:663).

A need to obtain the perception of registered nurses regarding communication during bedside clinical handover should be a priority. Even though bedside clinical handover among nurses is

important in providing high-quality health care for all patients, the processes and systems designed to enhance such communication remain understudied (Woods, Holl, Angst, Echiverri, Johnson, Soglin et al. 2008:2)

1.8 METHODS

A descriptive quantitative design was used for the study. A detailed description of the design and methods used to conduct the study are given in Chapter 3.

1.9 ETHICAL CONSIDERATIONS

Nursing research must not only be able to generate or enhance knowledge to guide practice, but should be developed and implemented in a manner that is ethically acceptable. It is the fundamental ethical principles established by a discipline or institution to guide researchers' conduct in research within human study participants (Polit and Beck 2017:722). For the purpose of this study, permission to conduct the research was obtained from the Chief Clinical Officer of the designated private hospital after ethical approval was obtained from the Research Ethics Committee, Faculty of Health Sciences at the University of Pretoria.

Implied consent was obtained from each participant (See Annexure D). Participation was voluntary and without any coercion. The aim of the study and what was expected of the participants were explained to the participants. Participants were assured of anonymity by using code numbers and confidentiality was maintained as the researcher prevented data gathered during the study being linked to any individual participant or made available to any other person (Brink, van der Walt and van Rensburg 2012:38). Participants were given an option to withdraw from the study up to the point before they returned the questionnaire. The three ethical principles as described in the Belmont Report, namely beneficence, respect for human dignity and the right to fair treatment (Polit and Beck 2017:139) were used to guide the researcher in conducting the study in an ethical manner.

1.9.1 Beneficence

Beneficence implies not only to protect the participants from physical, emotional or any other form of harm, but also to ensure and support their well-being (Polit and Beck 2017:139). To minimise harm and maximise benefit, the study was conducted under the supervision of a study leader. The researcher ensured that participants were comfortable. No harm was anticipated by completing the questionnaire as the researcher explained to the participants what was expected of them. Participants were then given an opportunity to ask questions. The researcher provided her contact details in case participants' needed clarity regarding the questionnaire.

1.9.2 Respect for human dignity

This ethical principle implies the right to self-determination and full disclosure (Polit and Beck 2017:140). The researcher respected the decision of the participants should they prefer not to participate in the study. The participants had the right to stop at any point in the questionnaire or to skip questions according to their choice without any explanation. However, the researcher explained to the participants that it would not be possible to withdraw from the study once the questionnaire had been submitted due to anonymity of the participant.

The right to self-determination implied that the researcher fully described the nature of the study to the participants. They were informed of their right to refuse participation, the researcher's responsibility and the risks and benefits. Written consent was not required in this study, however returning the questionnaire was regarded as consent (Polit and Beck 2017:141). Participants posted their questionnaires in a sealed box in their own time without any control.

1.9.3 Justice

Justice refers to fair treatment without any form of discrimination towards the participants, e.g. religion, gender, culture or social standing (Polit and Beck 2017:141). The researcher treated participants fairly and honoured all agreements made with them.

1.10 SUMMARY

This chapter introduced the study, background and statement of the problem, purpose of the study, research objectives and significance of the study, research methods and ethical considerations. Chapter 2 is a literature review related to the process of communication during bedside clinical handover in the nursing units.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

Good communication during clinical handover has been revealed to be related to improvements in patient safety and quality care provided to patients. Bedside clinical handover is a way in which nurses give report to each during change of shifts, whether day or night for continuity of care with the aim of ensuring safe quality clinical care. Ineffective communication during clinical handover has been identified as a global safety threat (O'Rourke, Abraham, Riesenberg, Matson and Lopez 2018:1660), which can have serious consequences resulting in wrong treatments, delays in diagnosis, medication errors, extended length of patient stay in the hospital, patient falls and patient deaths and ultimately major financial loss to the patient and the hospital.

2.2 LITERATURE SEARCH STRATEGY

A review of the literature was undertaken to summarise existing literature and provide a comprehensive understanding of the context of perception of nurses regarding communication during bedside clinical handover. A database search of EBSCOhost Health, CINAHL, Medline, PUBMED and Google Scholar was undertaken. The search terms: clinical handover, bedside handover, communication and nurses' perception were used in the database searches. This search strategy yielded several published articles. The full text articles were then assessed for eligibility. Inclusion criteria were that the article described research related to bedside clinical handover involving nurses and / or other health care professionals and were published in English between 2010 and 2018. This search identified articles, dissertations and theses for inclusion in the review.

2.3 LITERATURE REVIEW

This section addresses the definitions and current knowledge about the key study variables of bedside clinical handover, communication and perception of nurses. Each variable is defined, methods in which they have been utilised are discussed and current research regarding variables is synthesized.

2.3.1 Bedside clinical handover

Clinical handover is defined as the transfer of the patient, information, equipment, professional responsibility and accountability from one professional person or group to another (Gardiner,

Marshall and Gillespie 2015:227; Thomas, Schultz, Hannaford and Runciman 2013:49) and may also include strategies that promote education and teamwork (Gardiner et al. 2015:227).

According to Kullberg, Sharp, Johansson, Bradenberg and Bergenmar (2017:2) bedside handover is the shift-to-shift report between nursing staff at the bedside, allowing for patient involvement. A process of nursing handover occurs when one nurse hands over the responsibility of care for a patient to another nurse, for example, at the end of a nursing shift (Smeulers, Lucas and Vermeulen 2014:2). It consists of detailed and complex information and nurses receiving handover rely on informative and thorough handovers to guide practice and to make complex decisions about patient care (Spooner, Corley, Chaboyer, Hammond and Fraser 2015:20). The registered nurse from the outgoing shift handover the patient to the incoming shift comprising of the nursing team responsible to take care of the patient (Suominen, Johnson, Zhou, Sanchez, Sirel, Basilakis et al. 2014:48) for twelve hours. Therefore, bedside clinical handover is an essential component of professional practice by the registered nurse in ensuring delivery of safe patient quality care whilst minimising adverse events and attempts to address system-based problems that may impact on health-care outcomes (Kerr, Lu and McKinlay 2014:251). It is reported to be a patient-centered initiative that enhanced the standards of healthcare and reduced adverse events in the healthcare setting (Roslan and Lim 2017:150).

The role of bedside clinical handover is to communicate accurate, relevant and current details about the patients' care, treatment, health service needs, clinical assessment monitoring and evaluation and goal planning (Manias, Geddes, Watson, Jones and Della 2016:81). During the bedside handover, it is assumed that nurses use patients' files to share relevant clinical information about each patient (Thomas et al. 2013:54) without any consistent format. The nurses use a patient's file to share relevant clinical information, current health status, care, medications and any outstanding issues. In this study, bedside clinical handover refers to the handover during change of shifts between day and night staff and happens at the bedside of patients to convey applicable patient information to an incoming shift.

Bedside clinical handover must be accurate and complete enough to allow nurses to plan for efficient and effective patient care (Staggers and Blaz 2013:249). Nursing handovers are the most vital stage in the transition of patient care and the transmission of essential nursing information in a hospital setting (Slade, Murray, Pun and Eggins 2018:2) and are central for the continuity of patient care. Handover often happens in different settings within an organisation e.g. during change of shifts, between inter-departmental transfers such as when care is escalated to a higher level (Fealy, Donnelly, Doyle, Brenner, Hughes, Mylotte et al. 2019:81) or even external transfer of patients from one health care facility to the other. As handovers occur

frequently in health care, understanding what each type of handover is for and how it should be presented is essential for ensuring confident and competent handover by all staff.

However, this is not a view shared by everyone, as Anderson et al. (2015:5) conducted an integrated literature review to understand bedside handover and the issues related to it. The review revealed that nurses were more concerned with confidentiality issues than the benefits of handover at the bedside. In their study, nurses felt that the transfer of accountability and responsibility is at the end of the shift rather than during the handover process of patients (Anderson et al. 2015:7).

The practice of bedside clinical handover varies across specialities, units and even individuals. According to Kerr et al. (2014:253), participants who were mainly nurses and midwives believed that standard of care improved after bedside handover was introduced. They felt that bedside handover enabled them to assess the patients and records simultaneously as well as detailed transfer of information regarding their patients and had the potential to improve nursing care because it brought the nursing teams together (Chaboyer, McMurray, Johnson, Hardy, Wallis and Chu 2009:140). Johnson, Sanchez and Zheng (2016:264) reported that nurses preferred a written record of handover mostly in cases where nurses disputed being told certain information hence the improvement in nurses' satisfaction with handovers and creating a consistent structure for recording and accessing patient information.

According to Spinks, Chaboyer, Bucknall, Tobiano and Whitty (2015:2), nurses valued bedside handover as it offered a way for patients to participate by intercepting errors and clarifying plans and information and they believed that their patients were actively involved in the bedside handover process. On the same note, others were happy to conduct handover at the bedside as they saw benefits in patient and family becoming member of their team (Ernst et al. 2018:1194). Similarly, the outcome of the pilot study conducted by Frazier and Garrison (2014:71) revealed that nurses' response towards bedside clinical handover practice was positive and that it improved their ability to prioritize their workload at the beginning of their shift and gave a clearer understanding of the patient condition as they could immediately confirm accuracy of the verbal report with the clinical picture.

Although the study focuses on bedside clinical handover within the units, Hilligos and Cohen (2013:1) warn that the importance of between-unit transitions must not be overlooked or rather assume that the challenges are the same. Some nurses regarded handover at the bedside as time consuming due to patient and family participation which resulted in their increased stress levels and potentially impacting their quality of care (Ernst, McComb and Ley 2018:1195). In addition, poor communication during bedside handover has been attributed to patient's privacy

and confidentiality (Anderson et al. 2014:669) as sensitive information could not be discussed at the bedside, thus making bedside clinical handover not possible and ineffective.

Furthermore, Cornell, Gervis, Yates and Vardaman (2013:423) cited that bedside handover between two shifts is often unstructured, inconsistent, inaccurate and frequently interrupted; key information omitted; takes too long; and often nurses convey unnecessary information. However, various studies have advocated the use of a standardised handover tool to improve communication during bedside clinical handover (Patton, Tidwell, Falder-Saeed, Young, Lewis and Binder 2017:47; Rixon, Braaf, Williams, Liew and Manias 2017:4; Manias, Geddes, Watson, Jones and Della 2015:4; Thomas, Schultz, Hannaford and Runciman 2013:53) by using mnemonics to reduce adverse events and to ensure continuity of care. Structured sequence include the use of ISBAR *(Introduction, Situation, Background, Assessment and Recommendation*), IPASS (*Illness, Severity, Patient Summary, Action List, Situation Awareness and Contingency Planning, Synthesis by the receiver*), ISHAPED (*Introduction, Story, History, Assessment, Plan, Error Prevention and Dialogue*), 5-Ps (*Patient, Plan, Purpose, Problems and Precautions*). These were developed to form a customised handover tool, which included core and essential information (Anderson et al. 2014:669) to ensure effective communication during bedside clinical handover. Standardised or structured handover at the bedside promotes active participation of both nurse and patient (Patton et al. 2017:47; Rixon et al. 2017:4) as the flow of communication is improved. When people follow a structured sequence (Eggins and Slade 2015:198), they have a better chance of communicating complex information clearly. Croos (2014 as cited in Bakon, Wirihana, Christensen and Craft 2017:2) suggested that "using a handover aid or model is extremely useful in assisting the nursing team to provide a structured handover that details the relevant patient-focussed information."

Based on the revised literature, it is therefore clear that the definition and nature of clinical handover at patient bedside is perceived differently by nurses. The tendency to rely on one piece of information could lead to communication breakdown and possible adverse outcomes (Manias et al. 2015:3). The aim of bedside clinical handover is to achieve the efficient communication of high-quality clinical information when the responsibility for patient care is transferred amongst nurses.

2.3.2 Communication during bedside clinical handover

Kourkouta and Papathanasiou (2014:65) define communication as a "two-way" process in which there is an exchange of information, thoughts and feelings among people using the speech or other means." It is a process during which information is shared through the exchange of verbal and non-verbal messages where people create a relationship by interacting with each other (Bramhall 2014:53). This means that nurses should communicate information pertaining to the

patients' condition in their care in a clear, concise and comprehensive manner during bedside clinical handover. Any instance of incomplete exchange of information during bedside clinical handover can lead to wrong treatment procedure, treatment delays and delivery of incorrect medication to the patient. Thus, such instances can have severe consequences for the patient which may lead to severe health complications or even death. Nurses are not taught how to handover patients in a systematic way (Johnson, Barach and Arora 2011:528) and therefore communication during bedside clinical handover remains a global challenge resulting in poor quality care of the patients.

Communication during bedside clinical handover is an important aspect in providing safe patient care. Bedside clinical handover represents a patient-centred approach to transitions in clinical responsibility and offers a safer, clearer, more inclusive and comprehensive process for the dissemination of information between nurses (Slade et al. 2018:3) and allows for active patient participation. Therefore, the quality and subsequent health outcomes of patients depend upon effective communication between nurses (Kim and Oh 2016:2; Slade et al. 2018:3). Safe patient handovers require that accurate, reliable and relevant information be unambiguously communicated through active listening and participation between health care providers (Ranyal, Basukala and Hasnain 2015:1).

Several researchers found that inadequate and ineffective communication between nurses has been seen as a contributing factor to medical errors, which often leads to adverse events. The number of adverse events, patients' and doctors' complaints in the hospital under study, are often associated with ineffective communication during bedside clinical handover. Therefore, bedside clinical handover is a high-risk activity that can be associated with sentinel and serious adverse events (Burgener 2017:238) due to poor communication and inaccurate information (Kerr et al. 2014:250).

2.3.2.1 Verbal communication

According to Street et al. (2011:136) verbal handovers done at bedside have proved to enhance information transfer and patient-centred care. Written communication is also considered a part of handover communication (Birmingham, Buffum, Blegen and Lyndon 2015:2) can be used for future reference and also serve as a medico-legal value, however, Vermeir, Jolie, Leune, Vandijck, Schillemans, Vogelaers et al. (2015:1258) are of the opinion that verbal communication remains the most usual and sometimes the only means of communication between the healthcare professionals. They also advocate face-to-face communication during clinical handover as the nurses cannot only hear what is being said, but can also see the body language and facial expressions (non-verbal communication) which can provide key information to better understand the meaning behind the words. Dorvil (2018:22) cited that the written

nursing report does not allow the off-going and oncoming nurses to interact face-to-face, but provides them with a written record of the patient's medical background, situation, treatment and care plan that is usually conducted behind closed doors. This means that should the off-going nurse, at the end of shift forget to communicate vital information during bedside handover, the on-coming nurse may not refer back to the nursing notes.

In addition, Manser and Foster (2011:183) argued that health care professionals rarely used documentation available to them to support the quality of verbal handover. This means that nurses do not refer to the information in patient files such as radiology reports, pathology results and / or other clinicians' notes during clinical handover. Verbal communication can be used to ensure that accurate information is exchanged in a timely manner, whereas written communication can ensure the durability of patient information over time (De Grood, Parsons Leigh, Bagshaw, Dodeck, Fowler et al. 2018:625), preserving the "patient's story" for all relevant stakeholders (i.e., current status, relevant history, patterns that emerged during care and future-oriented care plan).

Verbal communication increases participation (Kerr, Lu and McKinlay 2014:255) and allows for questions and clarity should a need arise. Rixon, Braaf, Williams, Liew and Manias (2017:3) in a study to determine the functions and roles of questions in nursing handovers and how these questions contribute to handover quality improvement in specialty settings of an Australian tertiary hospital, found that questioning during bedside clinical handover did not only improve the quality of handover interactions, but also impacted positively on patient safety and quality of health care. According to Rixon et al. (2017: 21) the reason for questioning during bedside clinical handover was unconfirmed by the outgoing nurse poor quality of handover such as omitting basic information, or giving information that was unclear or disorganised. As a result, an incoming nurse could request further details, or utter requests to clarify information that was given (Rixon et al. 2017:20).

This means that incoming nurses do not passively receive information; they are active participants during bedside clinical handover, questioning outgoing staff thus promoting patient safety. This is also supported by a study conducted by Keenan, Yakel, Lopez, Tschannen and Ford (2013:249) that nurses talked more to each other during handover other than any other member of a medical team in that they communicate patients' progress e.g. change in patients' condition like reporting of abnormal vital signs, diagnostic results information about medication changes, patient transfers to other units, plan of action etc. It also allows teams to discuss resource management, solve problems and improve collaboration thus developing team cohesiveness (Giske, Melås and Einarsen 2018:768).

Therefore, it can be concluded that the impact of questioning on preventing adverse events and improving communication during bedside handover cannot be underestimated. From this finding, the researcher can ascertain that communication during verbal clinical handovers is of great importance as it allows nurses to clarify ambiguities; and documentation is equally important as it provides the evidence that care had been provided to the patient.

2.3.2.2 Written communication

Although written communication is recommended, lack of incompleteness and poor or illegible handwriting by the nurses, can lead to preventable adverse events and subsequent patient harm (Vermeir et al. 2015:1262). This is a true reflection in the nursing context and practice as patients' records are legal documents and as such, principles of effective record keeping should be followed when documenting patient care. Furthermore, Dorvil (2018:22) alluded that written nursing report doesn't allow the off-going and oncoming nurses to interact face-to-face, but it's a written record of the patient's medical background, situation, treatment and care plan that's usually conducted behind closed doors.

However, a descriptive comparative study by Ganz et al. (2015 in Forde et al. 2018:759) revealed that patient notes which are written communication, were used in 95% of handovers and incoming nurses could ask questions in the majority (95%) of handovers.

2.3.2.3 Non-verbal communication

Non-verbal communication behaviours include eye contact, posture, gesture, facial expression and physical distance between nurses. Regardless of the verbal communication being accurate and comprehensive, Suominen et al. (2015:48) cited that two-thirds of clinical information is lost after 3–5 shift changes if handover notes are not documented or they are taken by hand. The researcher has observed that during handover, interruptions such as attending to patient infusion lines, answering bells or even completing patient records creates distance between the outgoing nurse and incoming nurses. As such, junior nurses and students often feel threatened to actively participate during bedside handover and end up losing vital patient information as evidenced by their gestures and facial expressions. This is supported by the findings in a study conducted by Sarvestani, Moattari, Nasrabadi, Momennasab and Yektatalab (2015:245) which showed that when handover practices do not have an organized structure, it creates challenges that lead to many problems such as lack of concentrations and missing or forgetting important information.

2.3.2.4 *Electronic Tools*

Till, Sall and Wilkinson (2014:5) conducted a study on the use of an Electronic Handover System (EHS), to enhance communication among junior medical doctors. The results of their

study revealed that continuity of care had improved and 87% stated they felt it improved patient safety. The South Australian government issued a guide for the safe use of electronic clinical handover (Thomas, Pirone and Turner 2009) under the Australian Commission on Safety and Quality in Health Care (ACSQHC) to assist health care providers in providing safe and efficient clinical handover practices. The benefits of this electronic tool were: enhancing continuity of care through transferring accountability and responsibility; accessing and sharing information; assisting with clinical task management; supporting a structured approach to handover; supporting the use of standardised operating protocols; enabling the use of a minimum dataset and helping to identify and track patients.

In 2016, The World Health Organisation suggested the introduction of electronic health records to assist in curbing the problems associated with paper records and will serve as the means by which providers and patients keep track of patients' health information. It will allow providers to share information more easily and communicate with one another about patient care, although there can be unintended consequences, such as technical errors, data security concerns and altering the dynamics of communication between patients and providers. Although the benefits of electronic clinical handover tools might be appealing to the nurses and the health care industry, special consideration to its practical effectiveness should be considered in the South African context where the majority of nurses are lacking computer skills. The patient right to privacy and confidentiality might be compromised leading to an increase in cases of litigation.

2.3.3 The importance of effective communication

Effective clinical handover involves the communication of relevant patient information from one care provider to another and is critical to ensuring patient safety, quality care and optimal patient outcomes (Spooner et al. 2015:19). The importance of effective communication during clinical handover and factors affecting good handover at the patient bedside have been highlighted by various authors (Vines et al. 2014:166; Wakefield et al. 2012:243; Sand-Jecklin and Sherman 2013:187; Dorvil 2018:23). The mismatch between the content of verbal communication and non-verbal communication has been found to be a critical trigger for the detection of errors made during handover (Thomas et al. 2013:54). Bost, Crilly, Patterson and Chaboyer (2012:133) in a study to explore the clinical handover process between ambulance and emergency department personnel, identified lack of active listening and access to written information as issues affecting the quality of handover.

Good communication is vital for effective patient handover and it includes questioning. Questioning is an interactional practice advocated for outgoing and incoming health professionals for effective handover communication and have the enormous potential to improve the quality of handover interactions and to reduce adverse events (Rixon et al.,

2017:4). The majority of nurses agreed that sufficient and up-to date patient information was provided during bedside handover (Street et al. 2011:138) and they were able to clarify information as there was an opportunity to ask questions as they felt that information provided was confusing and would rather refer to the patient's record.

Bedside clinical handover improves aspects of nurse to nurse or nurse to patient dyadic relationship (Gregory, Tan, Tilrico, Edwardson and Gamm 2014:542). The dyadic relationship in this study, refers to the interaction between the nurses as they constantly communicate patients' needs and / or progress of condition in their care. During this process, nurses receive either increased socialization by sharing stories and experiences about their patients which they had either during their shift, thereby increasing communication during bedside clinical handover (Gregory et al. 2014:543). The dyadic interpersonal communication model highlights the importance of clarity and awareness for the many factors that can affect verbal and non-verbal communication. In other words, it describes the dynamic interactive process that takes place between two people. This model of communication assume that communication occurs reliably in improvement of the transfer of care responsibility and also facilitates opportunities for questions, ongoing negotiation of the care plan and even ultimate outlook of the patient during bedside clinical handover. The dyadic relationship can also occur between the nurse and the patient during bedside clinical handover, thus allowing patients the chance to hear what is being said, correct any misinformation and ask questions about their care (Spinks et al. 2015:1).

2.3.4 Barriers to effective communication

Manias et al. (2015:4) asserts that poor communication amongst nurses during clinical handovers can lead to poor patient outcome and can produce dire patient consequences or patient harm. McMurray, Chaboyer, Wallis and Fetherston (2010:4) explored factors that influenced handover in two facilities in Australia, which moved from taped handovers to verbal bedside handovers and Tan (2015:188) emphasises that the process of communication is essential for the delivery of continuous nursing care to patients from the shifting nurses.

However, there are multiple barriers that hinders the conduct of effective handovers such as insufficient training opportunities, lack of role modelling by senior health professionals (Manias et al. 2015:90), lack of confidence and experience, the distracting nature of the health care setting, lack of structure and standardisation, (Foronda, MacWilliams and McArthur 2016:37) and lack of understanding in completing handover activities.

According to O'Rourke et al. (2018:1661) too little or too much information sharing, frequent interruptions and having limited time to ask questions during clinical handover have also been identified as barriers to effective communication. In addition, Vermeir et al. (2015:1262)

identified timeliness as a significant contributor to communication efficiency for all stakeholders in the healthcare process. Although their finding was between general practitioners and specialists, delayed response to identified problems such as abnormal pathological or radiological findings can have negative results in continuity of patient care amongst nurses due to ineffective communication and patient safety can be compromised. The use of confusing language or jargon and lost or forgotten information (Streeter and Harrington 2017:537) are causes of communication failure during clinical handover.

Poor communication leads to additional workload as it decreases confidence in decision making, which in turn may lead to decreased patient satisfaction, economic impact and poor quality of work life such as stress and job dissatisfaction (Vermeir et al. 2015:1262-1263). Frequent distractions such as nurses having to respond to nurse calls, telephones and visitors (Welsh, Flanagan and Ebright 2010:151) during handover may lead to delays in communicating patient status changes and loss of critical information (Spooner et al. 2015:20). Alongside conversational interruptions amongst nurses, Spooner et al. (2015:22) mentioned that the noise generated from the intravenous pump alarms, nurse call alarms, ringing telephones etc. as another source of distraction during bedside clinical handover. Such noise can pose safety risk to the patient due to critical information being lost as the nurse will try to re-programme the pump or when air was sensed in the intravenous line requiring an immediate intervention, attending to nurse call alarms and answering the telephones during the handover process.

The cultural environment emphasizing a nursing unit hierarchy further exacerbates the psychological burdens on clinical nurses (Kim and Oh 2016:2) thereby creating peer conflict and hindering effective and constructive communication within the institution. De Lange, van Eeden and Heyns (2018:48) highlighted the use of indigenous language as a communication problem during bedside clinical handover. This was viewed as a sign of a disrespectful behaviour towards other healthcare professionals who does not understand the indigenous language being used. Besides, South Africa has eleven official languages, but English is the most preferred language of communication that is used by most institutions in South Africa. Again, language and understanding, differing accents by nurses during bedside clinical handover was also seen as a challenge by nurses that participated in a study by Johnson and Cowin (2013:125) although participants found ways to cope with their colleagues who had a different accent. Affective misunderstandings may occur when nurses do not share a common language and may impact negatively on the outcome of quality patient care. It can therefore be concluded that there is a need for professionalism and embracing diversity when communicating during bedside clinical handover.

Furthermore, South Africa is a culturally diverse country where the majority of nurses speak English as their second language. Therefore, understanding cultural-specific practices, particularly those involving the language and manner used to speak up, both by the patients and peers is vital during bedside clinical handover as it can often be misinterpreted negatively. According to Roslan and Lim (2017:155), nurses need to portray a professional image; not only in their physical appearance, but also through their knowledge of the patient's condition and the treatment plans, involving the patient and/or their family members during the bedside clinical handover. However, lack of confidence in communicating clearly or not being articulate can make this portrayal impossible and can lead to unavoidable errors.

Therefore, maintaining a high-quality work environment, including creating an atmosphere that encourages nurses to voice their concerns and opinions relevant to their work, can reduce the members' emotional distress and potential for errors; and improve patients' safety outcomes (Kim and Oh 2016:2). It is therefore important that nurses understand the dynamics of each other in the team, provide support and embrace diversity without comprising the culture of safety in the workplace.

2.3.5 Perceptions of nurses regarding communication during bedside clinical handover

Nurses are the backbone of the healthcare system and are critical to ensuring quality patient care and safety (Swart, Pretorius and Klopper 2015:2), hence the manner in which they communicate is vital and understanding nurses' expectations for competent, quality handover (Streeter and Harrington 2017:537) and can lead to interventions to train health care providers in effective handover communication. It is therefore imperative to explore the perception of nurses regarding communication during bedside clinical handover.

Johnson and Cowin (2013:121) conducted a study amongst 30 registered nurses and enrolled nurses to explore their perception on the introduction of bedside clinical handover and the use of written handover. In their findings, one of the themes was that good communication was about good communicators in which one group of registered nurses felt that if they get a good communicator during handover, communication becomes good as they are able to talk about problems (Johnson and Cowin 2013:125). In addition, one nurse described a 'triad of communication at bedside handover' implying there are three members in the communication: the patient, the outgoing and oncoming nurse and the team (Johnson and Cowin 2013:126). This implies that patients are seen as part of the handover process as it encouraged their active participation to ensure that information pertaining to their health is accurate.

Furthermore, Chaboyer, McMurray, Marshall, Gillespie, Roberts, Hutchinson et al. (2016:566) conducted a study to explore how health care professionals engaged patients in communication associated with care transitions. The transition of care usually happens at the bedside during handover from one shift to the other and / or during transfer of patients from one unit to the other. They stated that during bedside clinical handover, patient input can inform health care professionals about problems with treatment and lapses in care. In their study, they alluded that 60% of adverse drug events are related to incomplete or incorrect transfer of medication information during transitions of patient care. However, little is known about whether patient involvement during bedside clinical handover could reduce communication errors.

Tobiano, Whitty, Bucknall and Chaboyer (2017:345) revealed that nurses had mixed feelings regarding communication during handover of patients at the bedside. They were concerned about the disruption of bedside handover by external interference such as noise and number of nurses in the patient's room that led to handover being lengthy. In addition to that, they perceived patients to be a determining factor to the success of bedside handover due to their behaviours, preferences, or motivations.

Roslan and Lim (2017:154), interviewed 20 nurses to explore their perception regarding bedside clinical handover in an acute care ward. They described bedside clinical handover as challenging and disruptive. These interruptions derived from patients' requests, answering family members' enquiries or even by their own colleagues. Furthermore, they felt obliged to attend to the patients' needs when being called and found that family members tended to approach nurses during bedside clinical handover requesting to be updated on the patient's condition and their treatment plans as the nurses were all available and seen in the room.

Richter, McAlearney and Pennell (2016:1-9) conducted a hospital survey on patient safety culture comprising of a total of 515,637 respondents from 1,052 hospitals in the United States. The primary purpose of their study was to provide insight about how health care organizations could improve the percentage of successful handover (within units of a hospital or across units or organizational settings), focusing on organizational factors that can influence patient safety. Their analysis examined the differences in perceptions of management and clinical staff with regard to successful handover based on perceptions of how well patient information was relayed on patient transfers to different units within the hospital and the effect of shift changes on patient information transfer. Questions that were asked included whether important patient care information is often lost during shift changes and problems often occurring in the exchange of information across hospital units. Interestingly, the results indicated that teamwork across units had the largest effect (44%) on perceived successful handover as opposed to teamwork within the units, which was negatively associated with perceived successful handover.

Thomsom, Tourangeau, Jeffs and Puts (2018:878) revealed that perceived team work across units had the strongest association with perceived successful handover and was consistent for both managers and clinical staff, communication openness during bedside clinical handover was perceived as having impact on successful handover by the clinical staff. This meant that nurses felt uncomfortable handing over patients successfully in the presence of their supervisors which is something managers should be cognisant of as it might compromise positive patient safety outcomes. Van der Walt and Joubert (2014:145) also reported that authority relationships with apical hierarchies also make information sharing difficult since information exchange in medicine is based on verbal communication subjected to group dynamics.

Similarly, Ng, Pun, So, Chiu, Leung, Stone et al. (2017:5) explored aspects of communication during bedside clinical handover (i.e. communication between different disciplines and ranks, communication timeliness, understanding patient care goals, leadership effectiveness and overall effectiveness of the unit) and teamwork; and the nurses' perception of communication openness. Their study revealed that both communication among nurses (junior to senior nurses) and timeliness in the communication of information relevant to patient care was lower. However, there was a strong positive correlation between the staff's perception of communication openness level and their understanding of patient care goals although nurses were slightly less satisfied with leadership, but suggested a high assessment of the unit's effectiveness. The study was interesting in that it showed positive correlation between the staff perception of communication openness levels and their assessment of the unit's effectiveness and it indicates that nurses could develop confidence in speaking up therefore creating an atmosphere of safety for their patients.

Interpersonal conflict and poor teamwork amongst nurses were perceived to cause disruptions to the quality of communication as well as extend the duration of the bedside clinical handover (Ernst, McComb and Ley 2018:1195). This is mainly caused by incomplete tasks e.g. when the infusion line is infiltrated and was not fixed prior to the start of the next shift or failure to prepare the patients pre-operatively. This usually brings unnecessary burden on the oncoming shift as they often miss the important information during bedside clinical handover to attend to the incomplete tasks by their colleagues. The latter statement was also introduced by van der Walt and Joubert (2014:145), a South African study in trying to understand the challenges facing proper handover process between post-operative and critical care units. They revealed that environment plays a key role in the success of a handover. They mentioned that information that is verbally communicated is not always heard or understood if the environment is unsuitable for information exchange at that time. It means that self-awareness and situation awareness is

vital when communicating during bedside clinical handover. Therefore, it must be recognised that communication during bedside clinical handovers differs and is perceived differently by nurses.

2.3.6 Major themes in the literature

Researchers explored the handover practices of nurses in different units from the emergency department (Bost et al. 2012, Kerr et al. 2014, De Lange et al. 2018); medical and surgical units (Vermeir et al. 2015, Roslan and Lim 2017), to the intensive care units (Sluisveld et al 2015, Spooner et al. 2015). It provided an understanding of handover as a concept, methods of communication during handover as well as the perception of nurses regarding communication during bedside clinical handover.

From the literature reviewed, the researcher identified the following major themes:

- Current research in health care communication shows that well executed bedside clinical handovers are associated with improved levels of patient safety, patient satisfaction and clinician satisfaction (McMurray et al. 2010, Eggins and Slade, 2015; Manias et al. 2015).
- Nurses are clearly essential to bedside handovers in hospitals; their work in documenting and disseminating essential clinical information and engaging effectively with patients and other health care practitioners lies at the core of patient-centred health care.
- Effective verbal communication during bedside clinical handover leads to improved accuracy of information exchanged and clarify ambiguities about essential component of health care such as vital signs, changes in patient conditions, treatment plan and any follow-up to be made.
- Verbal bedside clinical handovers were preferred since it allowed clarification of ambiguities from both patient and the nurse giving the handover.

Several studies (Street et al. 2011; Staggers and Blaz 2013; Smeulers et al. 2016; Slade et al. 2018) shows that the majority of nurses agree with the key concepts of bedside handovers. Effective communication during bedside clinical handover is achievable if conducted in a good atmosphere, which enhances information transfer and shared understanding amongst nurses.

Despite bedside clinical handover being an important aspect within healthcare organisations, there is no concrete evidence on how suggested handover tools improved communication during bedside clinical handover. However, recommendations for clinical practice at handover focus on three aspects, suggesting that handovers should be standardised, structured and in

written form (Manias et al. 2015:4). Poor communication during bedside clinical handover is proven to be the reason for adverse events in the health care environment. Barriers to effective handover, such as specialty differences, level of experience, lack of standardised framework (Manias et al. 2015:4), lack of teamwork (Ernst et al. 2018:1194) and lack of education and training have been identified as key contributing factors affecting patient safety (Ng et al. 2017:2). However, many researchers believe that bedside clinical handovers seem to be the standard best practice so far.

2.3.7 Gaps identified and recommendations

The researcher recognizes several limitations on the researched literature pertaining to communication during bedside clinical handover. First, it covers different disciplines of health care professionals therefore making it difficult to conclude whether the findings are specific to nurses. Although some recommendations were made to include communication skills during education and training of nurses, there has not been successful implementation thereof. The Strategic Plan for Nurse Education, Training and Practice (2012/13 – 2016/17) document, outlines education and training as “Strategic Priority 1” to address the quality and relevance of nursing graduates in order to achieve improvements in population health outcomes, however, improving communication skills of nurses is not addressed which has direct link to positive patient quality outcomes. Nursing is very challenging today with threats of litigation in the work environment, therefore it is imperative to improve their communication skills i.e. spoken and writing, in order for them to render safe, quality care.

Secondly, many studies have examined factors that influence communication during bedside clinical handover (Anderson et al. 2015, Tobiano et al. 2017, Thomson et al. 2018), but there are limited studies on how the challenges were addressed or whether strategies where successfully implemented. However, there is a limited amount of research focused on understanding and empirically testing factors that influence the quality of nurse-to-nurse communication during handover between change of shifts. In addition to the perceptions of nurses regarding bedside clinical handover, Slade et al. (2018:9) suggest that issues such as stressors and concerns of nurses should be taken into consideration.

Thirdly, there may have been selection bias, as some of the research focused on specific units in the selected units of the participating hospitals which might not be the general view of the major component of the nursing staff involved with bedside handover. To date, researchers have recommended the use of different structured tools to assist with effective bedside clinical handover, however, it would be valuable if one method gets standardised to ensure uniformity of bedside clinical handover in the nursing units. To ensure the measures employed are effective in improving handover practices, measurement of the quality of handover is vital to identify gaps

and put effective measures in place such as education and training of nurses both in academic and healthcare settings (Foronda et al. 2016:40).

Finally, most published literature is based on international findings and few from the African context and specifically South Africa. Therefore, more research needs to be conducted locally in order to compare whether challenges regarding communication during bedside clinical handover are the same globally.

2.4 SUMMARY

This chapter explored the communication practices of nurses during bedside clinical handover within and across different units, both locally and internationally. The chapter provided an insight into bedside clinical handover as a concept, communication during bedside clinical handover as well as different communication methods used during handover. It also focused on the importance of effective communication during bedside clinical handover and barriers to effective communication during bedside clinical handover. The next chapter discusses research methodology.

CHAPTER 3: METHODOLOGY

3.1 INTRODUCTION

This chapter addresses the research design and methodology followed in conducting the study. Research method refers to the technique the researcher used to structure the study and to gather and analyse information relevant to the research question (Polit and Beck 2017:11). The techniques included the description of the study setting, population and sampling, data collection and data analysis and validity and reliability of the instrument used.

3.2 RESEARCH DESIGN

The research design is the overall plan for obtaining answers to the research question, which indicates how often data will be collected, comparisons made and where the study will take place (Polit and Beck 2017:56). The overall aim of the research design is to address the objectives of the study.

In this study, a descriptive quantitative design was used by the researcher to describe the perceptions of registered nurses regarding communication during bedside clinical handover at the selected private hospital in Mpumalanga province. The researcher selected this method to describe the aspects of the situation as it naturally occurred and sometimes served as a starting point for hypothesis generation (Polit and Beck 2017:206). This means that it is an accurate self-portrayal of perceptions of the registered nurses under study.

3.2.1 Quantitative approach

According to Yilmaz (2013:312) quantitative research is informed by an objectivist epistemology and thus seeks to develop explanatory universal laws in social behaviours by statistically measuring what it assumes to be a static reality. The task is to establish a representation of what consumers ‘do’ or ‘think’ (Barnham 2015:838). Therefore, quantitative researchers are systematic, progress logically through steps (Polit and Beck 2017:11), use structured instruments to collect data which is then analysed using statistical procedure. A quantitative approach endorses the view that psychological and social phenomena have an objective reality that is independent of the subjects being studied, i.e. the researcher and participants are viewed as fairly separate and independent. Hence, reality should be studied objectively by the researchers who should put a distance between themselves and what is being studied (Yilmaz 2013:312).

In this study, the researcher was systematic and data was collected using a structured questionnaire and analysed using descriptive and inferential statistics.

3.2.2 Descriptive research

The main aim of descriptive design is to observe, describe and document an aspect of a situation as it naturally occurs (Polit and Beck 2017:206). It is the accurate account of the characteristics of individuals, situations, or groups and the frequency with which certain phenomena occur using statistics to describe and summarise the data (Grove, Burns and Gray 2014:33; Ingham-Broomfield 2014:34). The study was descriptive as it was aimed at assessing and describing the perceptions related to bedside clinical handover practices of registered nurses during change of shift between day and night shifts in the general wards of a private hospital in Mpumalanga province.

3.3 STUDY SETTING

The study was conducted in a level three private hospital in Mpumalanga province. The hospitals in the private hospital group are ranked in four levels according to the size (level one being small sized) and the revenue generated (Mediclinic Southern Africa Nursing Structure, 2020). The selected hospital has a total of 314 beds which makes it a level three hospital. The hospital employs 141 registered nurses and 115 enrolled nurses. The units that were included in the study are: Gynaecology and Urology, Neuro-Orthopaedic, Surgical 1, Cardiology, Oncology, Obstetrics, Paediatrics and two Medical units. The researcher excluded specialised units such as High Care, Adult and Neonatal Critical Care, Operating theatre and Emergency Centre as she is neither familiar with their handover style nor allocation method. The units were chosen due to their bed capacity (217 beds) and has approximately 70 registered nurses who conduct bedside clinical handover. Each unit has single, semi-private, two to four bedded patient rooms. The selected units use a team allocation method where the registered nurses lead the team comprising of different categories of nurses.

3.4 RESEARCH METHODS

Research method refers to the techniques used to structure a study and to gather and analyse information relevant to the research question (Polit & Beck, 2017:11). The techniques include selection of population and sample, data collection and analysis strategies.

3.4.1 Study population

Population refers to the entire group of persons that meets the criteria that the researcher is interested in studying (Brink et al. 2012:131) and has common defining characteristics (Polit and

Beck 2017:56). The target population of the study were all registered nurses who were involved in the bedside clinical handover of patients in the nine nursing units of the designated hospital.

3.4.2 Sampling method

Sampling is a process of selecting cases to represent an entire population (Polit and Beck 2017:250). Total population sampling, a type of purposive sampling (Etikan, Musa and Alkassim 2016:1) was used to sample the registered nurses. This sampling method was deemed appropriate due to the number of registered nurses working in the selected units. The following inclusion and exclusion criteria guided the sampling process:

Inclusion criteria

- Permanently employed and working in one of the nine units.
- Older than 18 years and conversant with English.
- Registered with SANC as a registered nurse.
- Voluntary participation.

Exclusion criteria

Registered nurses working in specialized units such as emergency unit, adult critical care units, neonatal critical care units and operating theatres because the researcher felt that communication within nursing teams in specialty units might be substantially different to general wards, thereby compromising the data collection.

3.4.3 Sample size

The sample size depended on the willingness of the registered nurses to participate.The hospital employs 141 registered nurses working in all disciplines. Only registered nurses working in the nine units were invited to participate in the study. Therefore 68 registered nurses were invited, but only 51 completed the questionnaire.

3.4.4 Data collection

Data were collected with a structured questionnaire (See Annexure B). The tool used was developed after perusal of relevant literature. The questionnaire encompassed both closed and open-ended questions and was divided into three sections. Section A of the questionnaire covered the participants' demographics whilst section B covered the perceptions of registered nurses regarding their communication during bedside clinical handover and section C had open ended questions to obtain their perceptions regarding bedside clinical handover. The researcher, with the assistance of the unit managers, distributed the questionnaires in April 2018. Registered nurses completed the questionnaires within a week ensuring that all shifts

were covered. Participants were requested to post their completed questionnaires in a sealed box provided in each of the wards to ensure confidentiality was maintained. The questionnaire was completed anonymously as participants did not write their names on the questionnaire. It took the participants approximately 20 minutes to complete the questionnaire.

3.4.4.1 *Reliability and validity of the instrument*

Brink, Van der Walt and van Rensburg (2012:169) describe reliability as 'the degree which the researcher can depend on the instrument to produce consistent results'. Reliability of the questionnaire was ensured by pilot testing the questions after approval was granted by the Research Ethics Committee to commence with the study. For the piloting, two registered nurses were recruited conveniently from a unit in the hospital that was not included in the study. They completed the questionnaire to ensure that the questions were not ambiguous or difficult to understand.

Validity refers to the degree to which an instrument is measuring the construct it intends to measure (Polit and Beck 2017:309). To ensure that the instrument measured what it is intended to measure, the researcher focused on face and content validity (Gerrish & Lacey 2010:375). Face validity were enhanced by developing a questionnaire that is easy to read and understood by the respondents. To ensure content validity, the questions were sufficient to answer the research question and to realise the aim and objectives of the study, a literature review was conducted to develop the questionnaire that covered the content sufficiently. The questionnaire was evaluated by the supervisors and the statistician.

3.4.5 Data analysis

Eighty questionnaires were printed and distributed, 51 were completed and 29 were returned. The researcher kept the collected questionnaires in a safe place to ensure confidentiality of the data collected. Data from the questionnaire was coded and then captured on a Microsoft Excel spreadsheet. The researcher checked if the capturing was done correctly. Quantitative data collected was presented as percentages and numeric data in table format. The methods were selected as they produce results that are easy to summarize, compare and generalize.

To analyse the collected data, the researcher sought the assistance of a statistician. Both descriptive and inferential statistics were used to analyse the data collected using a frequency distribution in case of categorical variables and descriptive statistics as means, standard deviations and medians for the dependent variable.

3.5 SUMMARY

This chapter outlined a summary of research methods, objectives, research design, setting, population, sampling, data collection, data analysis and ethical considerations. Pilot testing was done to identify the flaws of the instrument. Data was collected by a means of a questionnaire (Annexure B). Chapter 4 presents the results and discussion.

CHAPTER 4: DATA ANALYSIS AND INTERPRETATION OF RESULTS

4.1 INTRODUCTION

This chapter describes the analysis of data using descriptive statistical tests and interpretation of findings. Polit and Beck (2017:725) describe data analysis as a systematic method of organising and synthesising research data and the testing of hypotheses using the data.

The purpose of this study was to describe how registered nurses in selected units in a private hospital in Mpumalanga province perceived nurse-nurse communication during clinical bedside handover. From the results of the study necessary recommendations were made to improve the quality of bedside clinical handover.

4.2 APPROACH TO DATA ANALYSIS

Descriptive statistics and comparative statistics were used to achieve the study objectives. The researcher analysed the collected data with the assistance of a statistician. Data were analysed using frequency distributions and descriptive statistics such as means, standard deviations and medians. The level of significance testing for the study was $p<0.5$. Percentages in these findings were taken to the nearest one decimal point. Cronbach alphas were computed to assess internal reliability. For those items that showed high Cronbach alphas, average scores ranging from one to four, were computed across the relevant items to form constructs. The mean or median scores for each construct were compared across the demographic variables by performing ANOVAs if the data comes from a normal distribution or non-parametric Kruskal-Wallis tests if the data were not normally distributed. Items with low Cronbach alphas were tested individually for associations with the demographic variables by performing Pearson's chi square test or Fischer's exact test.

4.3 RESULTS AND DISCUSSION OF FINDINGS

4.3.1 Section A: Demographic Profile of the Respondents

This section relates to the demographic profile of the respondents, which comprised five (5) items. Items included gender, age, years of experience as a registered nurse, language and highest qualification obtained at the time the questionnaire was administered. Results of the demographic profile of the respondents are summarised in **Table 4.1.**

Table 4.1 Demographic profile for registered nurse respondents for the total sample

Item	Statement	Frequencies	Percentage
Q1	**Gender**		
	Male	4	7.8%
	Females	47	92.2%
Q2	**Age**		
	26 – 30 years	9	17.6%
	31 – 35 years	11	21.6%
	36 – 40 years	18	35.3%
	41 – 45 years	3	5.9%
	46 years and above	10	19.6%
Q3	**Years of experience as a Registered Nurse**		
	Less than 2 years	8	15.7%
	2 – 5 years	13	25.5%
	6 – 10 years	14	27.5%
	11 – 15 years	9	17.6%
	16 years and above	7	13.7%
Q4	**Home Language**		
	African Language	41	80.4%
	English	5	9.8%
	Afrikaans	2	3.9%
	Did not specify	3	5.9%
Q5	**Highest qualification obtained**		
	Diploma	42	82.4%
	Bachelor's Degree	8	15.7%
	Did not specify	1	2.0%

In this study, the majority (92.2%; n=47) of the sample were females and males accounted for only 7.8%. Findings are presented in **Figure 4.1**.

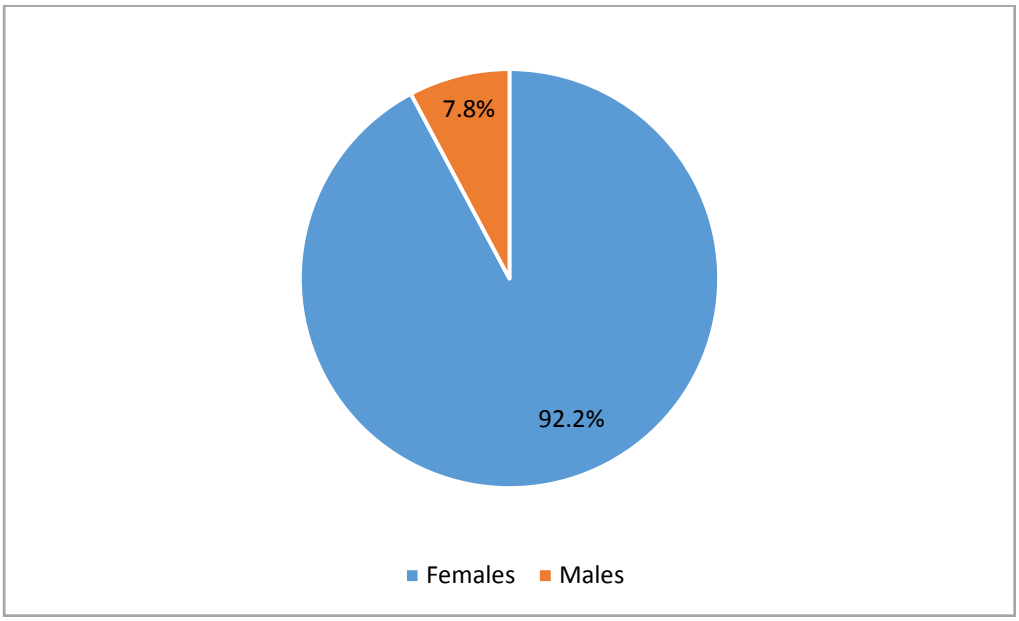

Figure 4.1 Gender of registered nurse participants

The majority (74.5%; n=38) of participants were aged between 26 and 40 years, with a minimal number (5.9%; n=3) aged between 41 and 45 years and 19.6% was 46 years of age and older

(n=10). It can be concluded from the results that the majority of nurses are a younger group of professionals. Findings are presented in **Figure 4.2.**

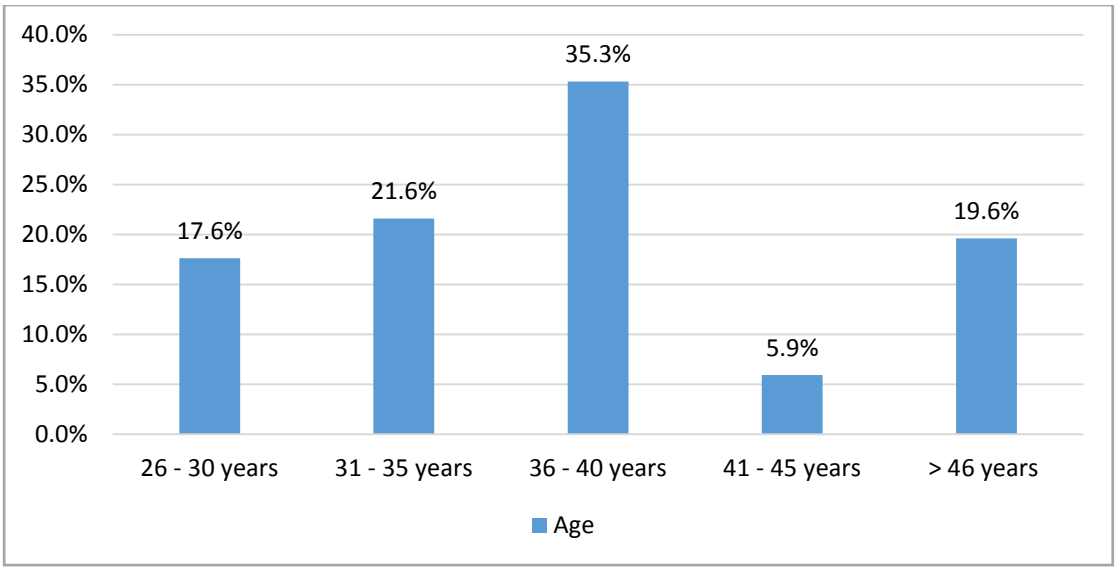

Figure 4.2 Age distribution of registered nurses

Results also show that 68.50% (n=35) of participants had less than 10 years of nursing experience and 31.3% (n=16) of participants having more than 10 years working as registered nurses. Findings are represented in **Figure 4.3**.

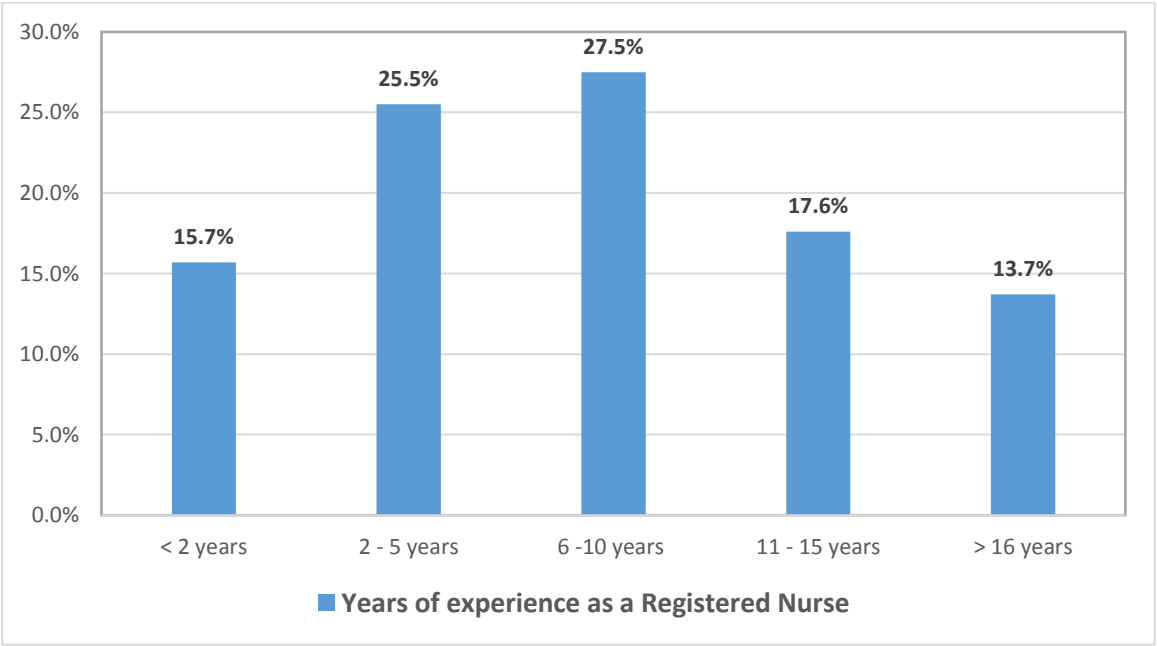

Figure 4.3 Years of experience as a registered nurse

The majority (80.4%, n=41) of participants uses an African language (Siswati, Xitsonga, Zulu and Sotho) as their home language, whereas 13.7% (n=7) uses English and Afrikaans respectively as their home language. Results are shown in **Figure 4.4**.

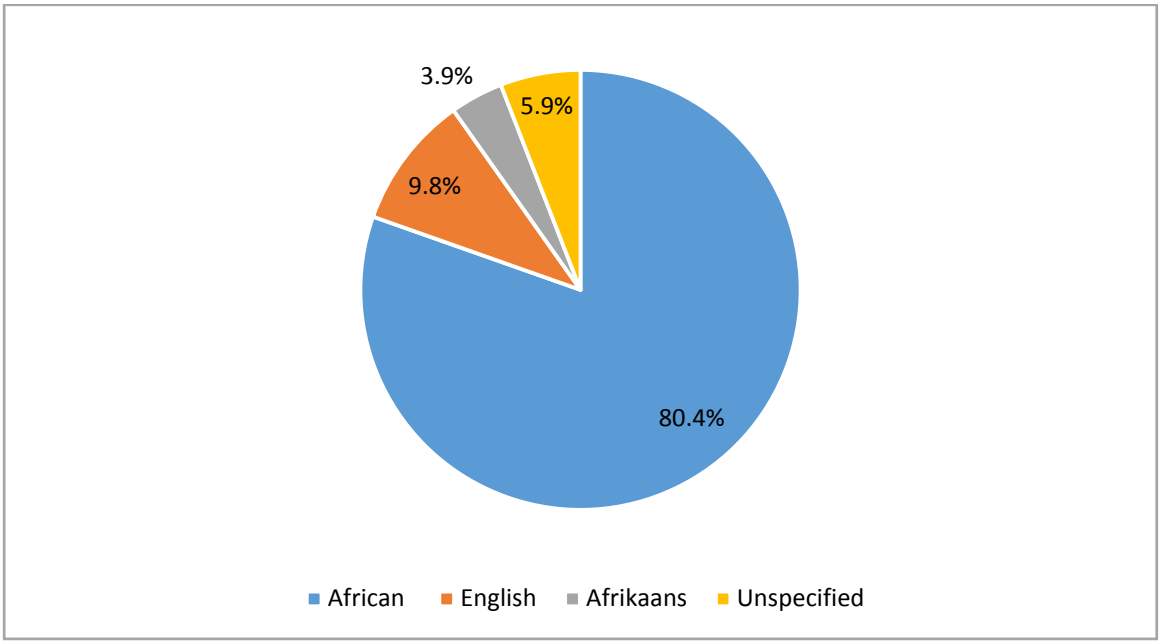

Figure 4.4 Home language of participants

Of the participants (n=51) who completed the questionnaire, 82.4% were Diploma trained with only few having specified that they did a comprehensive course (Diploma in General, Community, Psychiatry and Midwifery) and only 15.7% obtained a Bachelor's degree. The results are shown in **Figure 4.5**.

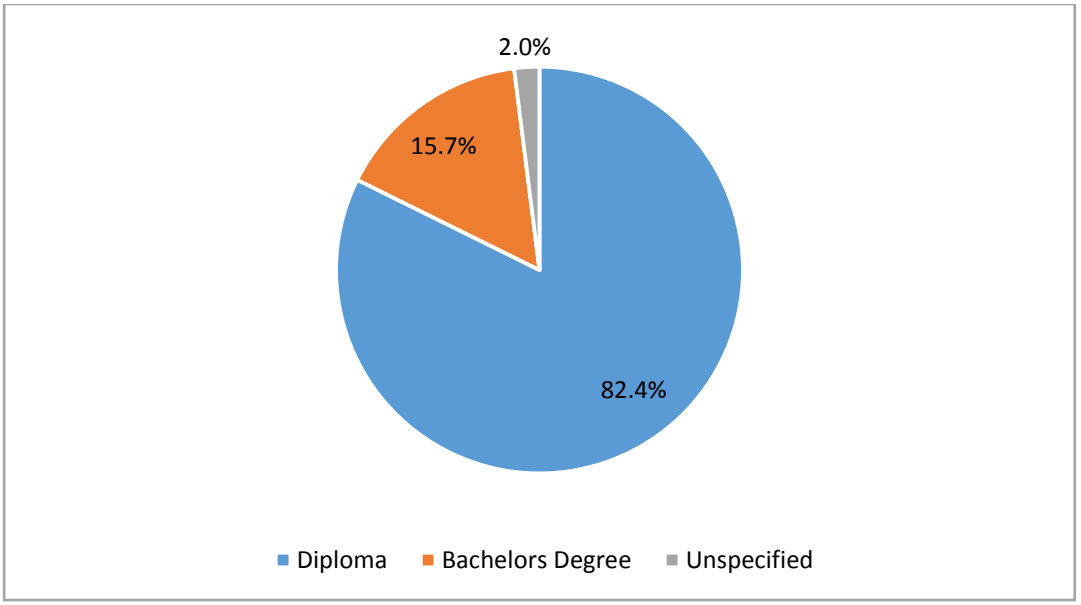

Figure 4.5 Highest qualifications obtained by participants

Discussion

Results from this study indicated that the majority of the respondents were predominantly females (92.2%; n = 47) and the majority of them were below 41 years (74.5%; n = 38), uses

African language (80.4%; n = 41) as their home language and obtained diploma (82.4%; n= 42) as their highest qualification. The demographics of this study, with an exception to language are similar to the study by Swart, Pretorius and Klopper (2015:4) which determined the relationship between the educational background of nurses and their perceptions of quality of care and patient safety in private surgical units in South Africa. The result published by the South African Nursing Council (SANC) as at 31/12/2018; showed a total of 131 579 registered nurses who are females and 15 212 registered nurses who are males. Although the results showed a significant increase in the number of male nurses, female nurses still dominate the profession. The age distribution of this group is similar to that of SANC, where 6% of registered nurses and midwives are below the age of 30 years and 94% above the age of 30 years.

4.3.2 Section B: Perception of the quality of bedside clinical handover by the registered nurses

The perception of registered nurses regarding their communication during bedside clinical handover formed Section B of the questionnaire, which comprised six major themes namely handover process; categories of people involved during handover process; communication skills; perception of the overall quality of bedside clinical handover; factors affecting effective bedside clinical handover and observation of patients' rights during bedside clinical handover. Each theme was divided into subthemes from the questionnaires. The positive (Strongly Agree and Agree) and negative (Strongly Disagree and Disagree) responses were clustered together. **Table 4.2** presents the themes and subthemes which evaluated the quality of communication during bedside clinical handover as perceived by the participants. The themes and the subthemes were numbered as they appeared on the questionnaire.

Table 4.2 Evaluation of the quality of bedside clinical handover as perceived by registered nurses

Item	Themes and subthemes	Agree		Disagree	
		Frequency	%	Frequency	%
Q6	***Handover process***				
Q6.1	Current bedside clinical handover is done at bedside	47	92.1%	4	7.9%
Q6.2	Is time efficient	41	80.4%	10	19.6%
Q6.3	Is consistent for each patient	42	82.4%	9	17.6%
Q6.4	Is guided by a standardised tool	38	74.5%	13	25.5%
Q6.5	Addresses patient safety issues	46	90.2%	5	9.8%
Q7	***People involved during handover***				
Q7.1	Registered Nurses	51	100%	0	0%
Q7.2	Enrolled Nurses	49	96.1%	2	3.9%
Q7.3	Auxiliary Nurses	42	82.4%	9	17.6%
Q7.4	Supervisor	28	54.9%	23	45.1%
Q7.5	Patient	42	82.4%	9	17.6%
Q8	***Communication skills during bedside clinical handover***				
Q8.1	Effective listening	43	84.3%	8	15.7%
Q8.2	Non-verbal communication	27	52.9%	24	47.1%

Q8.3	Focus of attention	39	76.5%	12	23.5%
Q8.4	Interaction of staff	43	84.3%	8	15.7%
Q8.5	Assertiveness whilst handing over	39	76.5%	12	23.5%
Q9	***Perception of bedside clinical handover in the context of quality and safety***				
Q9.1	Able to clarify information given	48	94.1%	3	5.9%
Q9.2	Provided with sufficient information about my patient	41	80.4%	10	19.6%
Q9.3	Information received is up to date	44	86.3%	7	13.7%
Q9.4	Have the opportunity to ask questions	43	84.3%	8	15.7%
Q9.5	Educated about different aspect of patient care	42	82.4%	9	17.6%
Q9.6	Information presented is easy to follow	39	76.5%	12	23.5%
Q9.7	Handover takes too much time	15	29.4%	36	70.6%
Q9.8	Often given information that is not relevant to patient care	17	33.3%	34	66.7%
Q9.9	Could obtain handover information on the patient records	27	52.9%	24	47.1%
Q9.10	Interrupted by patients or family members	26	51.0%	25	49.0%
Q10	***Factors affecting effective bedside clinical handover***				
Q10.1	*Task factors*				
Q10.1.1	Patient care	41	80.4%	10	19.6%
Q10.1.2	Non nursing tasks	38	74.5%	13	25.5%
Q10.1.3	Documentation	34	66.6%	17	33.3%
Q10.1.4	Multi-tasking due to pending tasks	40	78.4%	11	21.6%
Q10.2	*Technology*				
Q10.2.1	Use of cell phones	25	49.0%	26	51.0%3
Q10.2.2	Training	33	64.7%	18	5.3%
Q10.2.3	Patient handling aids e.g. wheelchairs	31	62.0%	19	38.0%
Q10.3	*Environmental factors*:				
Q10.3.1	Number of beds in the room	37	72.5%	14	27.5%
Q10.3.2	Physical obstruction to patients	31	60.8%	20	39.2%
Q10.3.3	Lighting and noise	29	56.9%	22	43.1%
Q10.3.4	Physical layout of the room	35	68.6%	16	31.4%
Q10.4	*Organisational factors*				
Q10.4.1	Patient workload	36	70.6%	15	29.4%
Q10.4.2	Less staffing	36	70.6%	15	29.4%
Q10.4.3	Work hours	32	62.7%	19	37.3%
Q10.4.4	Organisational climate	36	70.6%	15	29.4%
Q10.4.5	Education and information	37	72.5%	14	27.5%
Q10.5	*Nurse factors*				
Q10.5.1	Education, competencies and training	41	80.4%	10	19.6%
Q10.5.2	Perceptual, cognitive and physical abilities	40	78.4%	11	21.6%
Q10.5.3	Stress and fatigue	40	78.4%	11	21.6%
Q10.5.4	Situation awareness	36	70.6%	15	29.4%
Q11	***Patients' rights observed***				
Q11.1	Participation in decision making	36	70.6%	15	29.4%
Q11.2	Privacy and confidentiality	38	74.5%	13	25.5%

Theme 1: Handover Process (Q6.1 – Q6.5)

The first theme, *handover process,* deals with the technical aspects of handover, with most participants agreeing that they were satisfied with the handover process during bedside clinical handover. The majority of the participants were in agreement that currently bedside clinical handover is done at the bedside (92.1%; n=47), is time efficient (80.4%, n=41), consistent for each patient (82.4%, n=48), guided by a standardised tool (74.5%, n=38) and addresses patient safety issues (90.2%, n=46). On the contrary, less than 26% of the participants were not satisfied with the current handover process where 25.5% (n=13) were in total disagreement that a standardised tool was used during bedside clinical handover. Results are presented in **Figure 4.6**.

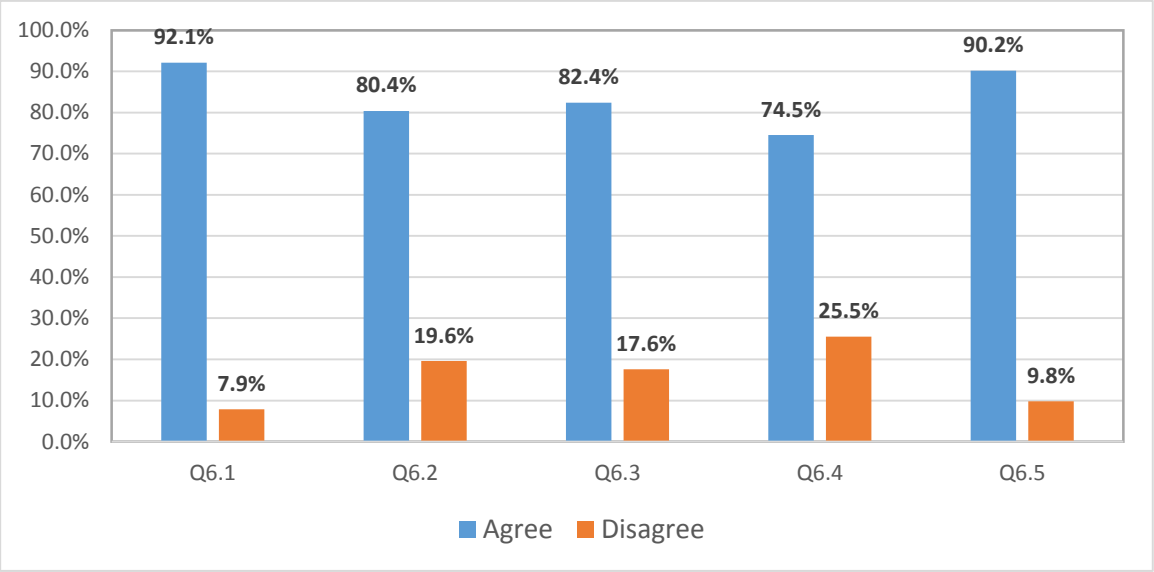

Figure 4.6 Handover process according to the participants

Discussion

Bedside clinical handover has been advocated by some researchers in an attempt to improve the culture of bedside reporting (Chaboyer et al. 2009, Kerr, Lu and McKinley 2013, Staggers and Blaz 2013, Street et al. 2013, Anderson et al. 2015, Manias et al. 2016, Ernst et al. 2018, Slade et al. 2018). From the results of this study, it was evident that the registered nurses were satisfied with the handover process in their units as handover was done at the bedside, was time efficient, consistent for each patient, guided by a standardised tool and addressed patient safety issues.

The results of the study are similar to the findings of an action research conducted by Sarvestani et al. (2017:229) where nurses' reflection showed that they were satisfied with the new handover program and that its duration decreased significantly after the introduction of bedside handover. Participants in their study also learned about standardized handover, ethical and legal issues related to nursing handover, basics of family-centred care, time management

skills, communication skills such as verbal and non-verbal behaviours and listening, writing and speaking skills which are necessary for nursing handover (Servastani et al. 2017:221). In this study there was statistical association between focus of attention in relation to time efficiency (0.001) ($p < 0.05$), consistency of bedside handover ($p = 0.003$) and whether handover addresses patient safety ($p = 0.009$). The results of the study are congruent with the study by Forde, Coffey and Hegarty (2018:765) on factors to be considered when evaluating bedside clinical handover and that nursing handovers provides opening for frontline nurses to prevent errors and unsafe practice (Drach-Zahavy and Hadid 2015:1140) thus addressing safety issues.

Theme 2: People involved during bedside clinical handover (Q7.1 – Q7.5)

The participants indicated that all categories of nursing staff (100%, n=51) registered nurses, (96.1%, n=49) enrolled nurses and (82.4%, n=42) auxiliary nurses are involved with bedside clinical handover. Furthermore, 82.4% of the participants agreed that their patients are involved during handover, however, there seems to be a gap where the majority indicated that supervisors (45.1%, n=23) are not involved with handover at the bedside. Results are presented in **Figure 4.7**.

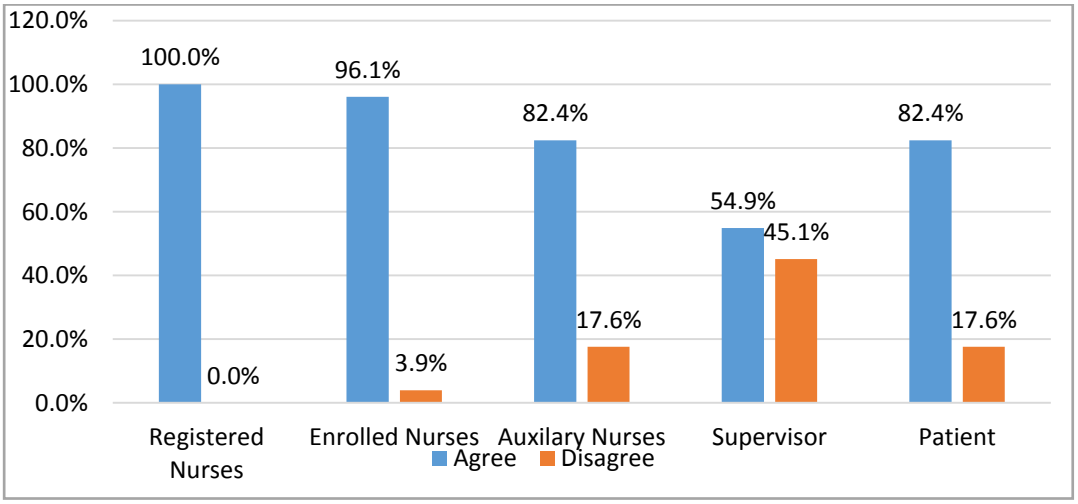

Figure 4.7 People involved during bedside clinical handover

Discussion

The study showed that all category of nurses (registered nurses, enrolled nurse and auxiliary nurses) were involved with bedside clinical handover including their supervisors and patients. The results are supported by (Van Sluisveld, Hesselink, Van der Hoeven, Wollersheim and Zegers 2015:597) that when senior nurses are involved with bedside handover, there seem not only an improvement in clinical handover, but also an improved communication and coordination of patient amongst healthcare professionals. In addition, involvement of senior nurses during bedside handover ensured compliance with patient safety goals and evidenced-based practice for handoff communication (Thornsberry 2019:7). When patients are involved

during bedside clinical handover, studies have revealed evidence of increased patient satisfaction, safety and quality of care provided (Sand-Jecklin and Sherman 2014:2855, Rixon et al. 2017:5, Roslan and Lim 2017:155, Tobiano et al. 2016:261, Streeter et al. 2017:537). According to Tobiano et al. (2016:261) there needs to be information sharing, power sharing and an established relationship between the patient and nurse for patients to participate during bedside clinical handover. This study showed that patients (82.4%; n=42) are involved during bedside clinical handover.

Theme 3: Communication skills during bedside clinical handover (Q 8.1 – Q8.5)

It is clear that the participants were confident about their communication skills during bedside clinical handover. An overwhelming majority of participants believed to be listening effectively (84.3%, n=43), observe non-verbal communication (52.9%, n=27), whilst 84.3% (n=43) believe they are assertive during bedside clinical handover. Some participants disagreed that non-verbal communication skills (47.1, n =24) were observed during bedside clinical handover. Of the participants 23.5% (n=12) refuted focus on attention during bedside clinical handover, whereas 15.7% (n=8) disagreed that neither effective listening nor assertiveness were observed during bedside clinical handover. Results are presented in **Figure 4.8**.

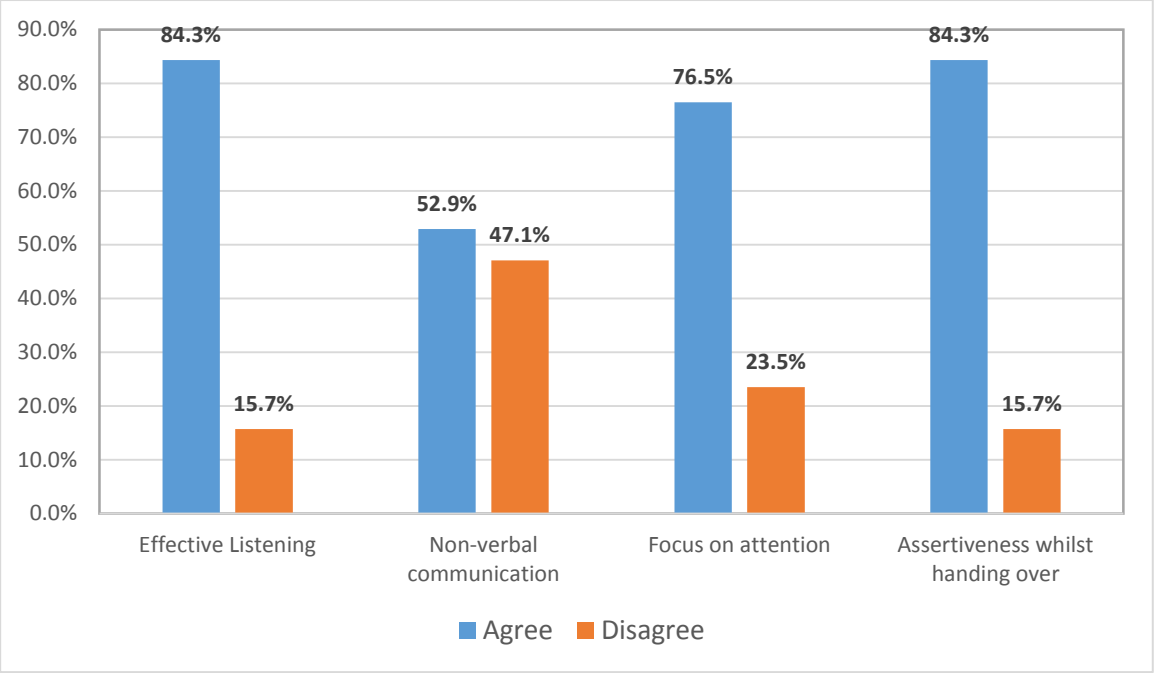

Figure 4.8 Communication skills during bedside clinical handover

Discussion

There were no issues with regard to how registered nurses in this study perceived their communication skills during bedside clinical handover although 47.1% (n=24) disagreed to non-verbal communication skill being observed during bedside clinical handover. Non-verbal communication behaviours such as eye contact, posture, gesture, facial expression and

physical distance between the nurses affects communication during handovers. Interestingly when determining what prevented the nurses from communicating effectively during bedside clinical handover, lack of teamwork and trust (n=6, 11.8%) was highlighted by participants as one of the factors. They mentioned that '*pride affects us from giving proper handover*', *not setting aside personal issues in the workplace*', '*attitude*', '*body language*' and '*fear*' amongst other things. The results showed a clear correlation between non-verbal communication skill of the participants' and lack of teamwork and trust. Although there has not been enough literature to support this finding, a study by Giske et al. (2018:768) on what their paper contributes to the wider global clinical community, reinforces that non-verbal communication such as tone of voice, body language and attitudes, affects communication during handovers.

Theme 4: Perception of bedside clinical handover in the context of quality and safety (Q9.1 – Q9.10)

An overwhelming majority perceived bedside clinical handover to be of good quality and safe in that they were able to clarify information given (94.1%; n=48), were provided with sufficient information about their patients (80.4%; n=41), received updated information (84.3%; n=44), have the opportunity to ask questions (84.3%; n=43) which means that handover is seen to be interactive. The participants also felt that handover educates them about different aspect of patient care (82.4%; n=42) and that presented information is easy to follow (76.5%; n=39). This is further supported by the majority who felt that information given during handover were relevant to patient care (66.6%; n=34). Furthermore, more that 50% of the participants stated that they could obtain handover information on patients' records (52.9%; n=27) while 47.1% (n=25) disagreed that patients' information was always recorded. Although most participants disagreed that handover takes too much time (70.6%; n=36), there was a general feeling that interruptions by patient or family member (51%; n=26) during handover is of concern and (49%; n=25) disagreed. It can be extrapolated from this finding that the participants perceived bedside clinical handover to be of good quality and safe to deliver their patient care. Results are presented in **Figure 4.9**.

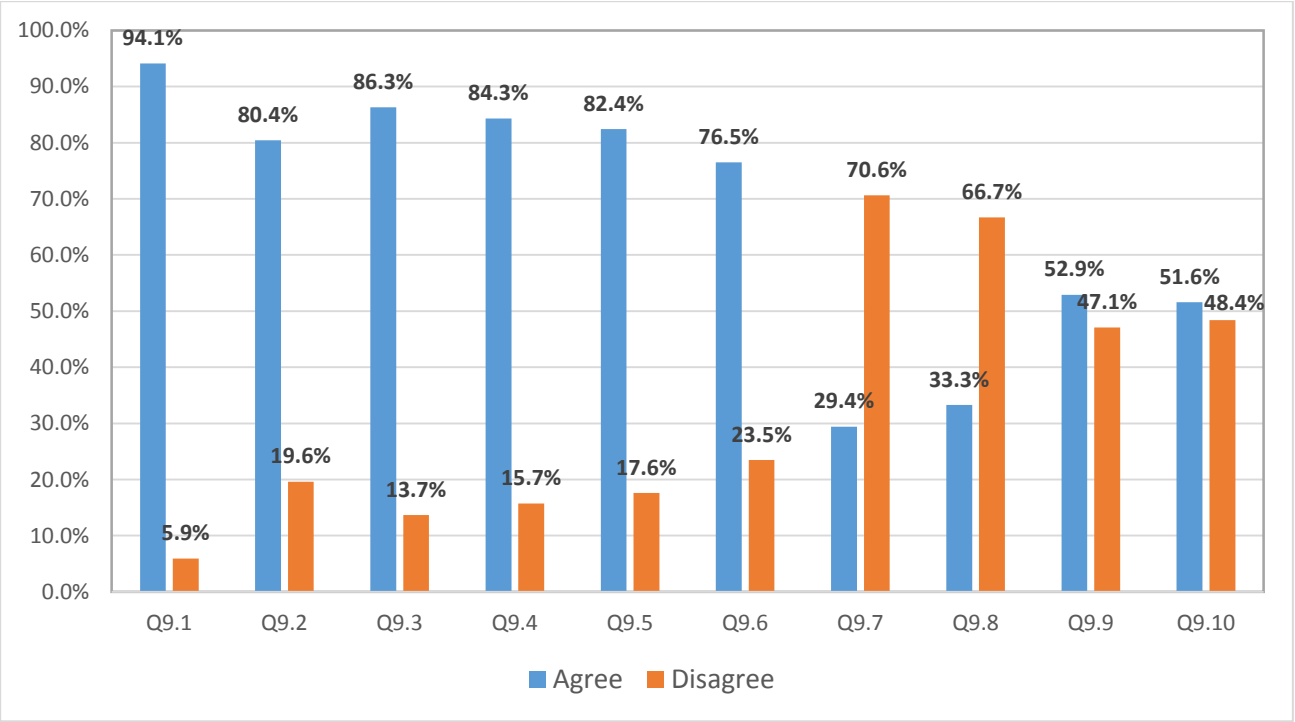

Figure 4.9. Perception of bedside clinical handover in the context of quality and safety

Discussion

In determining the perception of bedside clinical handover in the context of quality and safety, registered nurses agreed with most of the questions in **Table 4.2** (Q9.1 – Q9.9). Registered nurses from this study agreed that during bedside clinical handover, they were able to clarify information given to them and that information about their patients were sufficient. They also mentioned that they received up to date information, had the opportunity to ask questions and were educated about different aspect of patient care (Kerr et al. 2014:255). They believed that information presented was easy to follow and could obtain handover information on the patient records. However, they disagreed that handover took too much time and were often given information that is not relevant to patient care. Again, they perceived handover to be interrupted by patients and family members.

The results of the study are also similar to the study conducted by Roslan and Lim (2017:150) in an interpretive, descriptive, qualitative study to explore nurses' perceptions of bedside clinical handover in an inpatient acute-care ward in Singapore. In this study, there was no significant difference found between information obtained during handover in patient records and bedside clinical handover ($p = 1.000$). No difference was also found between time efficiency of bedside clinical handover in relation to obtaining information on patient records ($p = 0.485$).

Theme 5: Factors affecting bedside clinical handover

Task Factors (Q10.1.1 – Q10.1.4)

More than 60% of participants agreed that task factors such as patient care (80.4%; n=41), carrying out non nursing task (74.5%; 38), documentation (66.7%; n=34), multi-tasking due to pending task (78.4%; n=40); training (64.7%; n=33) and patient handling aids such as wheelchairs (62%; n=31) can affect the quality of bedside clinical handover. However, (51%; n=26) disagreed that the use of technology such as cell phones affect clinical handover. Results are shown in **Figure 4.10**.

Environmental Factors (Q10.3.1 – Q10.3.4)

The majority of participants indicated that environmental factors have negative influence on the quality of bedside clinical handover. They agreed that the number of patients in the room (72.5%; n=37), physical obstruction to patients (60.8%; n=31), lighting and noise (56.9%; n=29) which may be due to the staff themselves or alarming of equipment and the layout of the room (68.6%; n=35) either by size has an effect on the quality of bedside clinical handover. Results are presented in **Figure 4.11**.

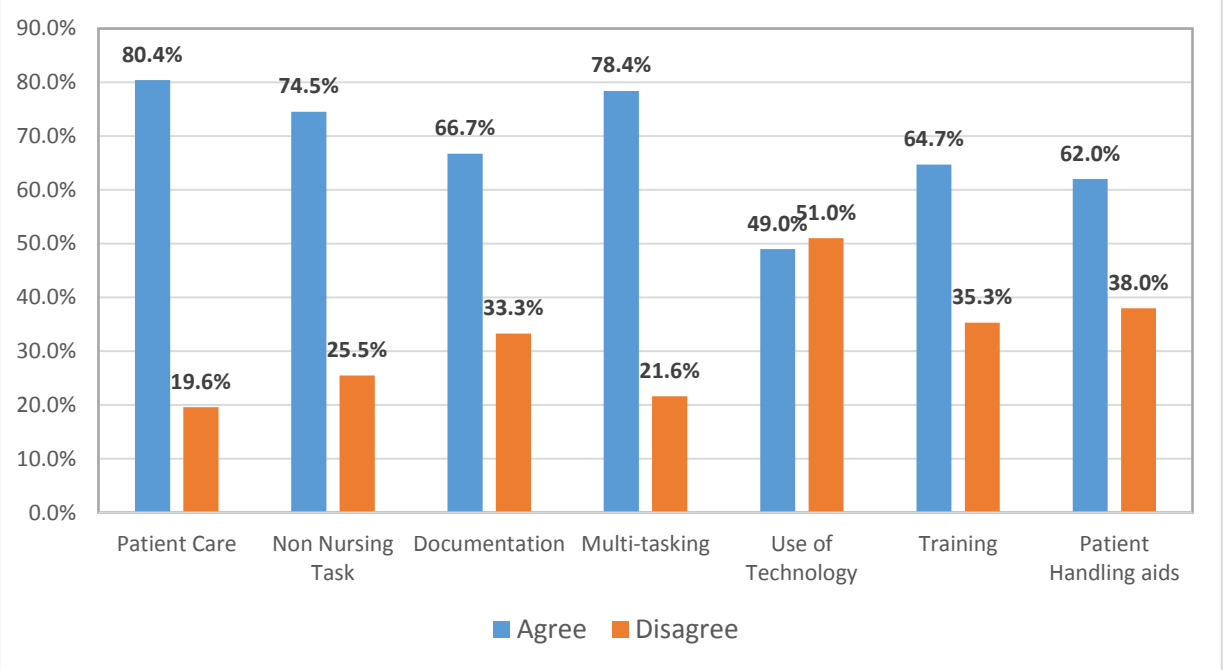

Figure 4.10 Task factors affecting bedside clinical handover

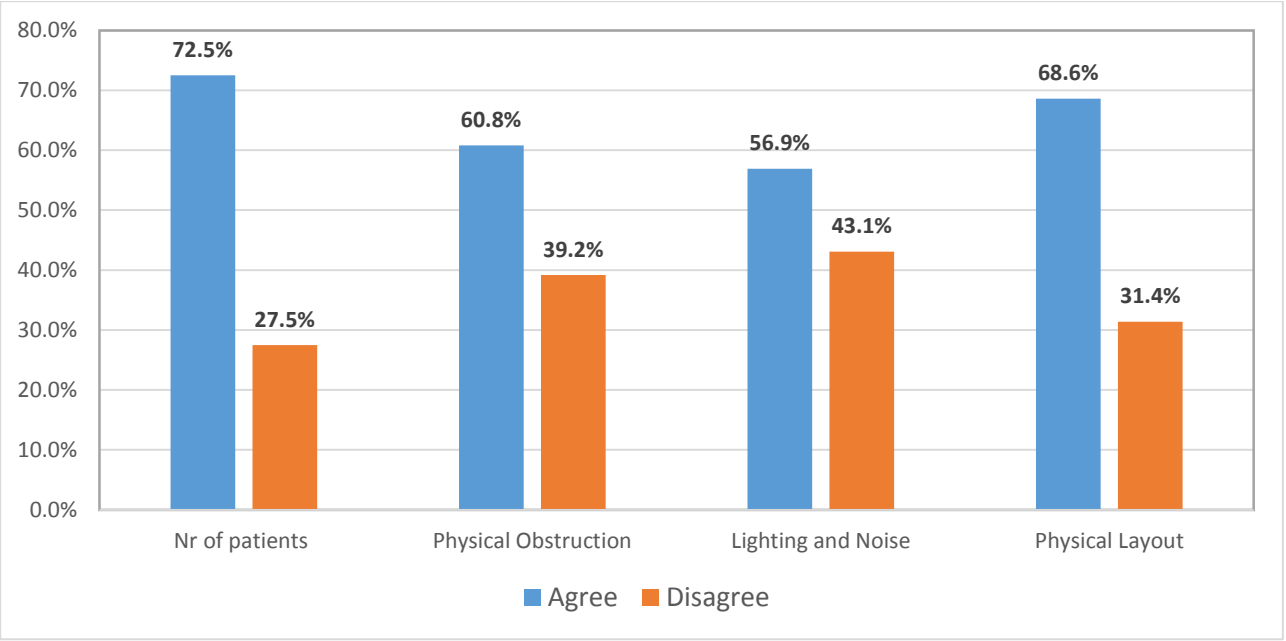

Figure 4.11 Environmental factors affecting bedside clinical handover

Organisational Factors (Q10.4.1 – Q10.4.5)

Almost three quarters of the participants agreed that patient workload (70.6%; n=36), less staffing (70.6%; n=36), work hours (62.7%; n=32), organisational climate (70.6%; n=36) and education and information (72.5%; n =37) were organisational factors affecting bedside clinical handover amongst the registered nurses. See **Figure 4.12**.

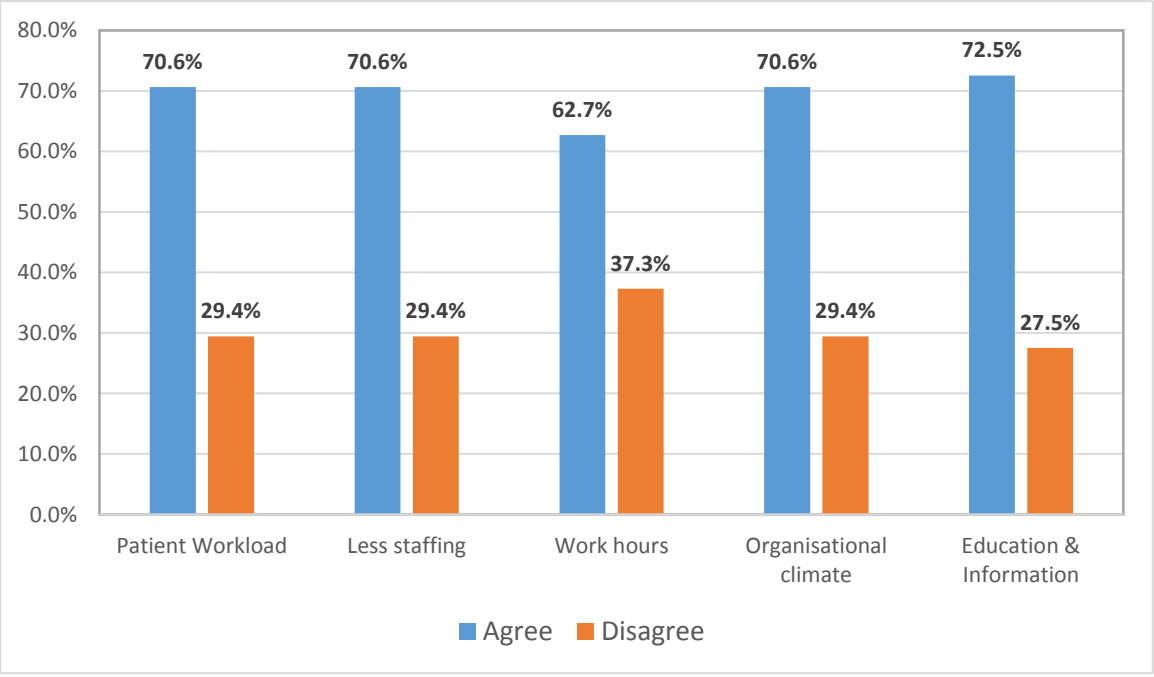

Figure 4.12 Organisational factors affecting bedside clinical handover

Nurse Factors (Q10.5.1 – Q10.5.4)

An overwhelming majority of registered nurses perceived education, competencies and training (80.4%; n=41) and perceptual, cognitive and physical abilities (78.4%; n=40) of nurses as a major contribution to poor communication during bedside clinical handover. The participants identified stress and fatigue (78.4%; n=40) as nurse factor element that causes poor quality bedside clinical handover. They also agreed that by being aware of their situation (70.6%; n=36) can improve communication during bedside clinical handover. It can therefore be concluded that nurse factors have a major impact on the quality of bedside clinical handover. The results are presented in **Figure 4.13**.

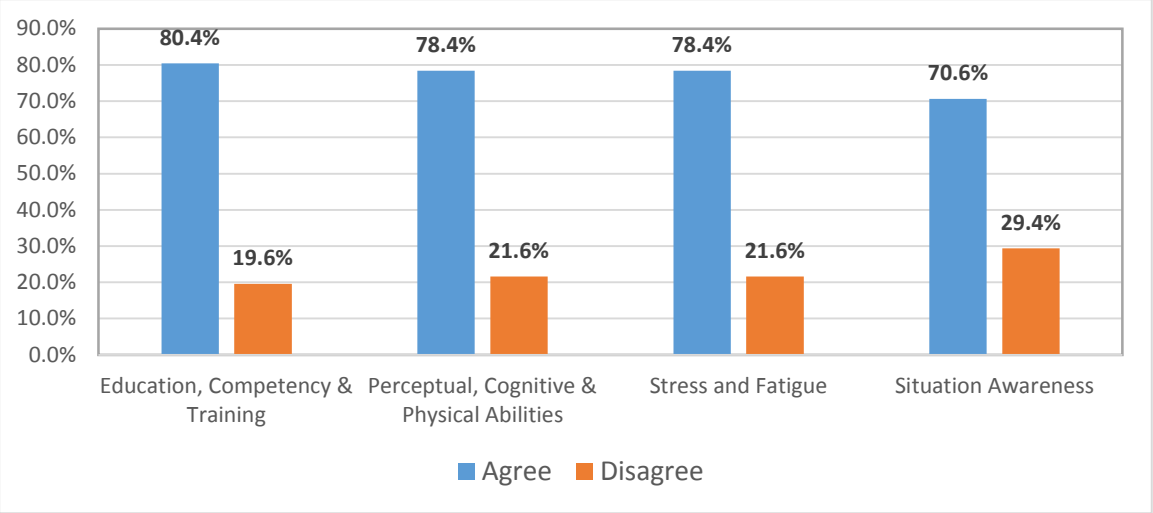

Figure 4.13 Nurse factors affecting bedside clinical handover

Discussion

Overwhelmingly, registered nurses in this study, alluded that task, environmental, organisational and nurse factors affected effective bedside clinical handover and results are illustrated in **Figure 4.10** to **Figure 4.13**. Although the majority (n=39; 76.5%) of registered nurses agreed that that information presented was easy to follow, some nurses (n=8; 16.7%) indicated that the use of African language during handover created a barrier to effective communication. This is supported by comments such as '*language barrier e.g. Tsonga or siSwati during handover*' or '*let's try to use international language*'. Using a language that is not understood by all in a professional setting can be regarded as being disrespectful. De Lange, van Eeden and Heyns (2018:48) in a qualitative study to explore the handover practices in the emergency department between emergency care practitioners and healthcare practitioners, observed that there was an occasional use of '*indigenous language*' during handover which was not only seen as disrespectful, but could compromise patient safety.

Registered nurses in this study mentioned that clinical competence and time management be improved to enhance communication during bedside clinical handover. They mentioned that

handover starts late and are often rushed without communicating important information as the majority of staff use public transport. Some felt that timeliness makes them not to know their patient and end up nursing patient records. This lack of time often causes unnecessary disruptions during bedside handover hence a need for senior leaders to give directions and assist in organising the handover. Even though different researches advocates handover at bedside, there is a need to allocate more time to bedside handover (Sarvestani et al. 2018:229).

When handoff delays impacted on planned time, it increases stress and other secondary effects on nurses, including resentment between nurses and decreased patient satisfaction (Ernst et al. 2019:126). The results of this study showed that lack of confidence and clinical competence prevented nurses from communicating effectively. Registered nurses in this study mentioned that they do not believe in themselves as they are inexperienced, are unable to prioritise important issues, have lack of knowledge which is evident by not knowing the diagnosis of patients hence they are unable to identify patients' signs and symptoms. Nurses have historically served in a subservient role to physicians which is disempowering and can lead to a lack of confidence (Foronda et al. 2016:39).

Theme 6 Patients' Rights (Q11.1 – Q11.2)

Three quarters of the participants agreed that patients' rights are adhered to during bedside clinical handover, 70.6% (n=36) agreed that patients participate in decision making regarding their care and 74.5% (n=38) ensured that privacy and confidentiality of their patients is maintained during bedside clinical handover. The results are shown in **Figure 4:14**.

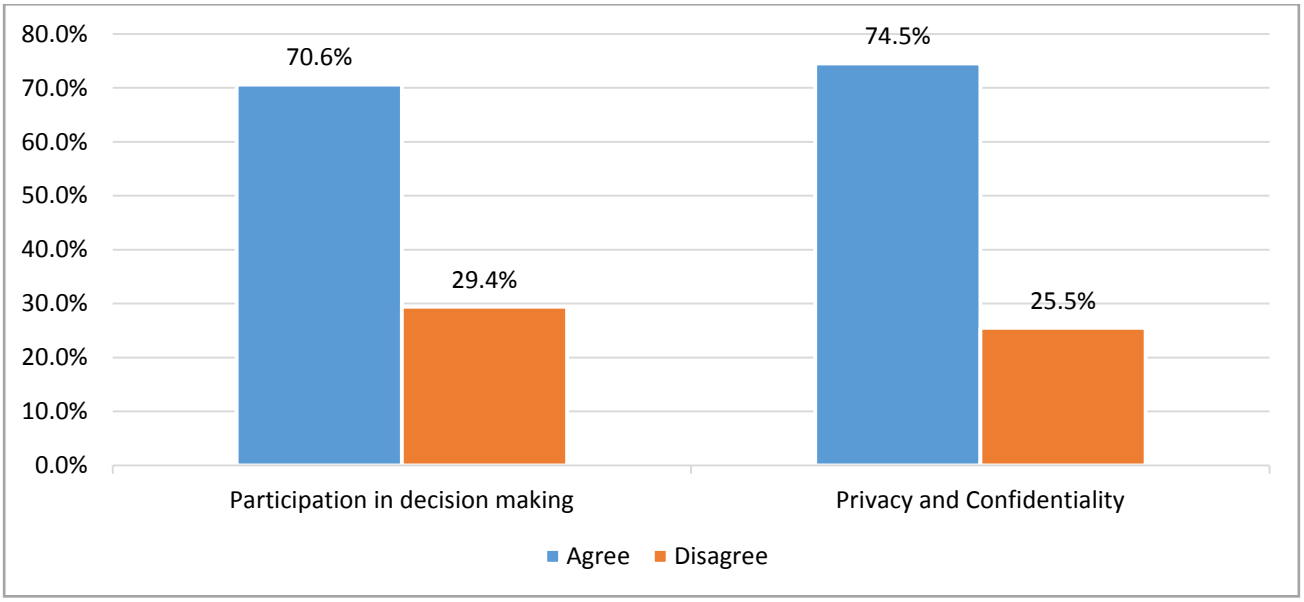

Figure 4.14 Participants' adherence to patients' rights

Discussion

The results of the study are supported by Tobiano et al. (2018:255) which showed when nurses encourage patient participation during bedside clinical handover, patients can contribute information about their care and progress which may improve the quality and safety of content and build the nurse-patient relationship.

4.3.3 Section C: Participants' opinions of effective communication during bedside clinical handover

The last part of Section B included open ended questions where participants were asked their opinion with regard to '*what can be done to improve communication during bedside clinical handover?'* (Q12 in a questionnaire) and '*what did they think prevented the nurses from communicating effectively?*' (Q13 in a questionnaire). Although different reasons were given by the participants, the researcher decided to organise similar responses into themes, which were then coded and analysed as categorical data. **Table 4.3** presents the themes which gives the opinions of the participants.

Table 4.3 Themes reflecting opinions of registered nurses regarding improving communication during bedside clinical handover and issues preventing nurses from communicating effectively

Item	Theme	Frequency	Percentage
Q12	*What can be done to improve communication during bedside clinical handover?*		
Q12.1	Clinical competence	15	29.4%
Q12.2	Patient and staff involvement	8	15.7%
Q12.3	Language	4	7.8%
Q12.4	Time management	11	21.6%
Q12.5	Privacy and confidentiality	4	7.8%
Q12.6	Documentation	1	2.0%
Q12.7	Other	8	15.7%
Q13	*What are the things that prevented the nurses from communicating effectively?*		
Q13.1	Timeliness	10	20.8%
Q13.2	Interruptions	2	4.2%
Q13.3	Lack of confidence and experience	13	27.1%
Q13.4	Lack of teamwork and trust	6	12.5%
Q13.5	Language barrier	8	16.7%
Q13.6	Increased workload	6	12.5%
Q13.7	Lack of senior involvement	1	2.1%
Q13.8	Lack of confidentiality	2	4.2%

Theme 1: What can be done to improve communication during bedside clinical handover?

The majority of participants felt the need to improve clinical competency (29.4%; n=15) of the nursing staff and marked by comments such as "*if we can focus on important issues*", "*full important information*", "*correlation of information documented*", "*preferably RNs should be the one taking handover", "clear and concise communication, ensure key information is accurate".*

Time management (21.6%; n=11) was seen as an area that needed improvement as some respondents saw the need to improve handover time and reduce workload so nurses are up to speed with what has been done and what is yet to be done. Less than 16% of the respondents suggested that patients and other category of nurses should be involved (15.7%; =8) during bedside handover. This is marked by comments such as "*to communicate and explain and to involve patient*", "*all nursing category to be available during handover*", "*RNs not including junior staff*" and "*all categories should handover so that they will assist us with bells and questions that patients are asking*". Only 7.8% (n=4) commented on both language and privacy and confidentiality. Participants felt that communication should be in English, as a language that is understood by most. Some respondents cited use of sign language as a challenge since it might be interpreted differently by patients.

With regard to privacy and confidentiality, this is what was suggested by respondents:

> *"to be done at nurses station to avoid interruption", "number of beds in the room should be taken into consideration", "no visitors during handover", "structure of the beds in the ward to improve privacy", "during handover next to the bedside it is not possible to protect our patient especially if more than one in a room", "giving handover inside the room with other patient, there is no privacy".*

Other issues such as "in-service training, complete documentation after doctors' rounds, improve documentation not to rely on memory for handover and the presence of a Unit Manager and Senior Professional nurse during handover so that they can '*know what goes on in their ward and to check for weaknesses in documentation*"", were seen to be valuable in improving communication during bedside clinical handover. The results are presented in **Figure 4.15**.

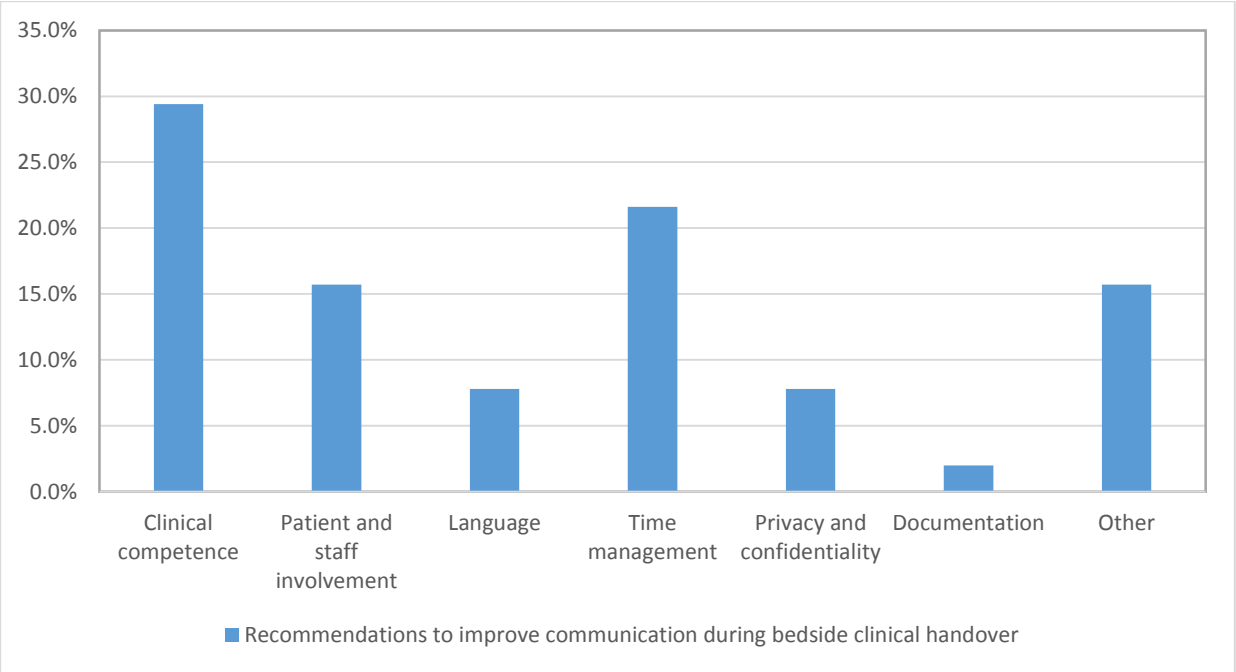

Figure 4.15 Participants' recommendations to improve communication during bedside clinical handover

Theme 2: What are the things that prevent nurses from communicating effectively?

Lack of confidence and experience were seen by the majority of participants (27.1%; n=13) as one of the contributing factors to ineffective communication between nurses. Following are some of the participants' answers regarding this question:

"Inability to prioritise what is important"
"They don't believe in themselves"
"Nurses being ignorant about the issues in the ward and unwillingness to learn"
"Lack of responsibility and lack of knowledge"
"Staff competences"
"Negligence"
"Inexperience e.g. trouble understanding medical technology"
"Lack of knowledge"
"Incompetent staff not identified and trained accordingly"
"Failure to take responsibility"
"Staff doesn't know the condition and diagnosis"
"Clinical incompetence"
"Thinking differently and not asking questions"
"Poor communication during changing of shifts"
"Not knowing diagnosis of patients as result signs and symptoms are not identified"
"Involvement of patients in decision making"

“Proper assessment”

“Ignorance”

“Confidence and lack of knowledge”

In addition, 20.8% (n=10) of participants reported time as a barrier to effective communication during bedside clinical handover. Below are what they said:

“Time, if we start handover late and then staff are in a hurry as most uses public transport”

“Lateness”

“Time, rushing to finish”

“Late coming because one will be rushing home and cannot give proper communication”

“There must be enough time for handover, if can start counting drugs at 06:30 so that we can start handover at 06:45”

“Time - we need to have enough time”

“Being rushed to do things”

“Non-sufficient time for handover”

“Being in a hurry when handing over”

“Time as well. I think it plays a role, because a person will be in a rush to clock out”

“Honestly, nurses do not have time to know their patients better they are nursing are patients' documents”

Other participants mentioned language (16.7%; n=8) as another barrier to effective communication. The use of African language during handover was highlighted as a major challenge since the majority of participants use one of the African languages as their home language.

“Language barrier e.g. Tsonga” or “*…or siSwati during handover”*

“Language” and “Language use”

“Language barriers, let's try to use international language”

“Not being fluent in English”

Lack of teamwork and trust (11.8%; n=6) and increased workload (11.8%; n=6) were among the contributing factors.

Lack of teamwork and trust

“Pride affects us from giving proper handover to each other”

“Not setting aside personal issues in the workplace”

“Attitude”

“Lack of teamwork”

“Body language, lack of respect and attitudes”

“Nurses not listening busy talking to each other especially at night handover”

“Fear”

“Respect each other”

“Intimidation of seniors”

“Not taking handover seriously thereby creating a gap in patient care”

“Lack of team spirit among our staff members”

Increased workload

“Busyness of the ward”

“Workload”

“Understaffed”

“Shortage of staff”

“Over worked”

“Too much workload”

Less than 5% of the participants cited interruptions (4.2%; n=2), lack of confidentiality (4.2%; n=2) and lack of senior involvement (2.1%; n=1) as factors preventing them from communicating effectively.

“The environment e.g. noise”

“Chaos in the ward whilst changing shifts”

“Confusion in the ward e.g. busy ward"

“Noise levels” and *“Noise during handover”*

“Environment, then the unit is untidy”

“The presence of relatives in the ward, Number of beds in the room, confidence not maintained”

“Relatives and visitors”

“Family - we need to excuse family during handover”

“Motivation (positive) to promote that culture from our superiors”

From these results, it can be concluded that effective communication in an organization plays a critical role in influencing work outcomes as well as individual members. There is a need to focus on staff competency, teamwork and address the use of indigenous language in the workplace to improve effective communication in the selected units under study. Results are presented in **Figure 4.16**.

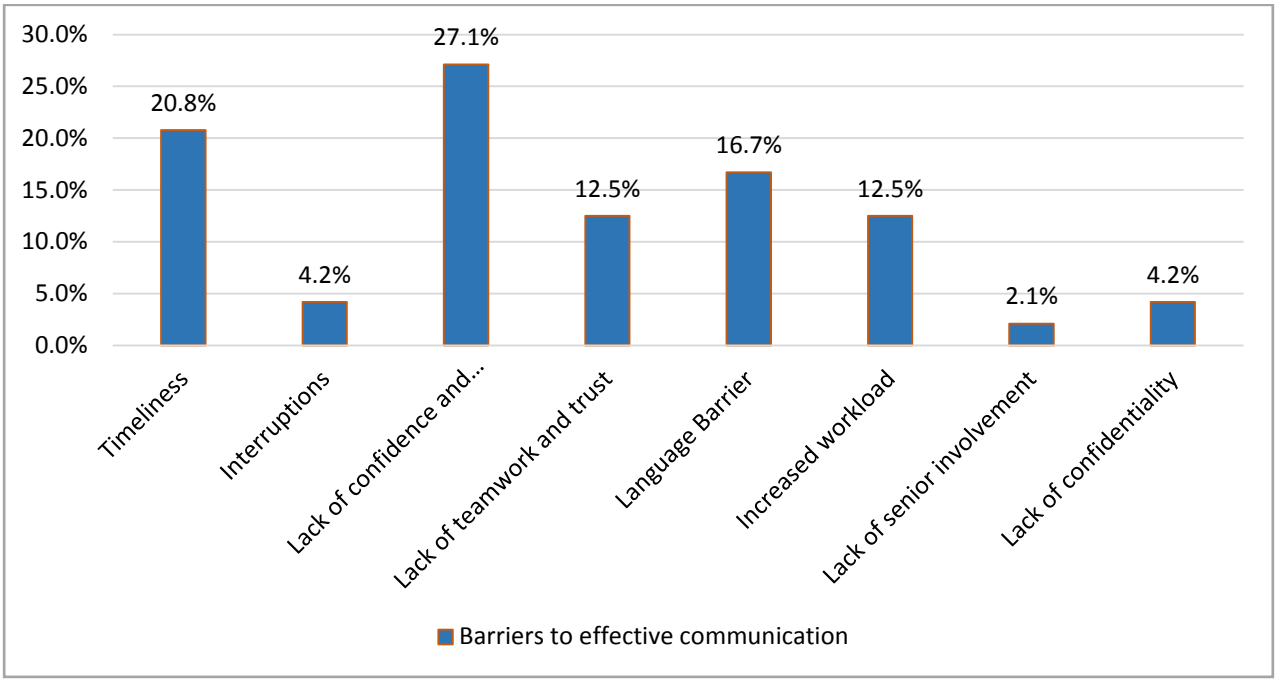

Figure 4.16 Participants' responses to barriers to effective communication

4.3.4 The relationship or association between the quality of bedside clinical handover and the registered nurses

In this section, the researcher wanted to establish whether there exists a relationship or association between the demographic profiles of registered nurses (Section A) and their quality of handover (Section B) and their perceptions with regarding to bedside clinical handover (Section C). **Table 4.4** outlines suggested linking of questions from the different sections.

Table 4.4 Summary of questions to be linked

Section A **Demographic Profile** Q 2 and Q 3 Q4	**Questions to be linked with:** Q7.4; Q8.5; Q9.1; Q10.5.1; Q10.5.2; Q10.5.4 Q9.1; Q9.2; Q9.4; Q9.6; Q13.1
Section B **Quality of handover** Q6 Q10.1.4	 Q8.3; Q6.5; Q9.9 Q10.2.2; Q10.4.1 to Q10.4.5; Q10.5.3
Section C **Effective communication** Q12 Q13	 Q6.4; Q6.5; Q9.3; Q9.9 Q2; Q3; Q4; Q7.4; Q9.7 to Q9.10; Q10.1.1 to Q10.5.3; Q11.2

These questions are usually represented by cross tabulations where one question appears in the rows of the table and the other in the columns of the table. Since the sample was not large, some of the categories were grouped together. For example, the “strongly disagree” and “disagree” were grouped together and “agree” and “strongly agree” were also grouped together.

Each cross table consists of cells. To test whether there exists a relationship or an association between two variables, a statistical test called Fisher’s exact test was performed. This test calculated a so-called p-value which is used to decide whether there is no association between the two questions or there is an association between the two variables. If the p-value is greater than the level of significance (usually we work with a 0.05 level of significance), there is an association. This is the case in this example, where 0.052 > 0.05 and this implies that there is an association, but it is not a significant association between two variables.

Table 4.5 Rating of supervisors’ involvement during bedside clinical handover in relation to age distribution of respondents

Q2r: Age * Q7.4r: Supervisor Cross tabulation

			Q7.4r: Supervisor		
			Disagree	Agree	Total
Q2r: Age	26 - 30 years	Count	4	5	9
		Expected Count	4.1	4.9	9.0
		Column %	17.4%	17.9%	17.6%
		Standardized Residual	.0	.0	
	31 - 35 years	Count	5	6	11
		Expected Count	5.0	6.0	11.0
		Column %	21.7%	21.4%	21.6%
		Standardized Residual	.0	.0	
	36 - 40 years	Count	7	11	18
		Expected Count	8.1	9.9	18.0
		Column %	30.4%	39.3%	35.3%
		Standardized Residual	-.4	.4	
	Older than 40 years	Count	7	6	13
		Expected Count	5.9	7.1	13.0
		Column %	30.4%	21.4%	25.5%
		Standardized Residual	.5	-.4	
Total		Count	23	28	51
		Expected Count	23.0	28.0	51.0
		Column %	100.0%	100.0%	100.0%

r = respondents

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	.684[a]	3	.877	.908		
Likelihood Ratio	.685	3	.877	.908		
Fisher's Exact Test	.807			.892		
Linear-by-Linear Association	.106[b]	1	.744	.790	.425	.101
N of Valid Cases	51					

a. 3 cells (37.5%) have expected count less than 5. The minimum expected count is 4.06.
b. The standardized statistic is -.326.

Out of the total number of participants between the ages 26 – 40 years (n=38), 69.5% disagreed that their supervisors are involved during bedside clinical handover whilst 78.6% agreed to their involvement. The remainder of participants older than 40 years (n=13); 30.4% disagreed to supervisors' involvement and 21.4% agreed. The results of the p-value (p=0.892) imply there is no significant association between age of participants and supervisors' involvement during bedside clinical handover

Table 4.6 Rating of assertiveness whilst handing over in relation to age distribution of participants

Q2r: Age * Q8.5r: Assertiveness whilst handing over Crosstabulation

			Q8.5r: Assertiveness whilst handing over		
			Disagree	Agree	Total
Q2r: Age	26 - 30 years	Count	1	8	9
		Expected Count	2.1	6.9	9.0
		Column %	8.3%	20.5%	17.6%
		Standardized Residual	-.8	.4	
	31 - 35 years	Count	4	7	11
		Expected Count	2.6	8.4	11.0
		Column %	33.3%	17.9%	21.6%
		Standardized Residual	.9	-.5	
	36 - 40 years	Count	3	15	18
		Expected Count	4.2	13.8	18.0
		Column %	25.0%	38.5%	35.3%
		Standardized Residual	-.6	.3	
	Older than 40 years	Count	4	9	13
		Expected Count	3.1	9.9	13.0
		Column %	33.3%	23.1%	25.5%
		Standardized Residual	.5	-.3	
Total		Count	12	39	51
		Expected Count	12.0	39.0	51.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	2.628[a]	3	.453	.473		
Likelihood Ratio	2.683	3	.443	.472		
Fisher's Exact Test	2.549			.493		
Linear-by-Linear Association	.309[b]	1	.579	.641	.349	.108
N of Valid Cases	51					

a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is 2.12.
b. The standardized statistic is -.556.

There were 12 participants across all ages who disagreed that age was related to the level of assertiveness during bedside clinical handover and 39 of the participants agreed with the statement.

The Fisher's exact test resulted in a p-value of 0.493, therefore it can be concluded that there is no association between the two variables in **Table 4.6**.

Table 4.7 Participants ability to clarify information in relation to their age

Q2r: Age * Q9.1r: During handover: I am able to clarify information given to me Crosstabulation

			Q9.1r: During handover: I am able to clarify information given to me		
			Disagree	Agree	Total
Q2r: Age	26 - 30 years	Count	0	9	9
		Expected Count	.5	8.5	9.0
		Column %	0.0%	18.8%	17.6%
		Standardized Residual	-.7	.2	
	31 - 35 years	Count	2	9	11
		Expected Count	.6	10.4	11.0
		Column %	66.7%	18.8%	21.6%
		Standardized Residual	1.7	-.4	
	36 - 40 years	Count	0	18	18
		Expected Count	1.1	16.9	18.0
		Column %	0.0%	37.5%	35.3%
		Standardized Residual	-1.0	.3	
	Older than 40 years	Count	1	12	13
		Expected Count	.8	12.2	13.0
		Column %	33.3%	25.0%	25.5%
		Standardized Residual	.3	-.1	
Total		Count	3	48	51
		Expected Count	3.0	48.0	51.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	4.770[a]	3	.189	.196		
Likelihood Ratio	5.337	3	.149	.229		
Fisher's Exact Test	3.793			.190		
Linear-by-Linear Association	.001[b]	1	.973	1.000	.586	.216
N of Valid Cases	51					

a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .53.
b. The standardized statistic is .033.

The majority of the participants (n=48) across all age groups agreed that they are able to clarify information given to them during handover whilst 3 participants in two different age categories disagreed; (31 – 35 years, n=2) and (>40 years, n=1) respectively.

The test in **Table 4.7** resulted in a p-value of 0.190 which is greater than 0.05, therefore there does not exist a significant association between age and whether participants are able to clarify of information during bedside clinical handover.

Table 4.8 Age distribution of participants in relation to Nurse Factors: (Education, competencies and training) affecting effective clinical handover

Q2r: Age * Q10.5.1r: Nurse Factors: Education, competencies and training Crosstabulation

			Q10.5.1r: Nurse Factors: Education, competencies and training		
			Disagree	Agree	Total
Q2r: Age	26 - 30 years	Count	0	9	9
		Expected Count	1.8	7.2	9.0
		Column %	0.0%	22.0%	17.6%
		Standardized Residual	-1.3	.7	
	31 - 35 years	Count	2	9	11
		Expected Count	2.2	8.8	11.0
		Column %	20.0%	22.0%	21.6%
		Standardized Residual	-.1	.1	
	36 - 40 years	Count	4	14	18
		Expected Count	3.5	14.5	18.0
		Column %	40.0%	34.1%	35.3%
		Standardized Residual	.3	-.1	
	Older than 40 years	Count	4	9	13
		Expected Count	2.5	10.5	13.0
		Column %	40.0%	22.0%	25.5%
		Standardized Residual	.9	-.4	
Total		Count	10	41	51
		Expected Count	10.0	41.0	51.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	3.315[a]	3	.346	.380		
Likelihood Ratio	4.933	3	.177	.260		
Fisher's Exact Test	3.241			.369		
Linear-by-Linear Association	2.985[b]	1	.084	.094	.057	.031
N of Valid Cases	51					

a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is 1.76.
b. The standardized statistic is -1.728.

The results presented in **Table 4.8** showed that the majority of participants (n=41) in all age categories agreed that nurse factors such as education, competencies and training; affected the quality of effective bedside clinical handover and only 10 participants disagreed.

However, there was a significant statistical difference (p=0.369) between the two variables presented in **Table 4.8** according to the Fisher's exact test conducted since p-value is greater than 0.05. Therefore, there is no association between the two statements in Q2 and Q10.5.1.

Table 4.9 Age distribution in relation to Nurse Factors: (Perceptual, cognitive and physical abilities) affecting effective clinical handover

Q2r: Age * Q10.5.2r: Perceptual, cognitive and physical abilities Crosstabulation

			Q10.5.2r: Perceptual, cognitive and physical abilities		
			Disagree	Agree	Total
Q2r: Age	26 - 30 years	Count	1	8	9
		Expected Count	1.9	7.1	9.0
		Column %	9.1%	20.0%	17.6%
		Standardized Residual	-.7	.4	
	31 - 35 years	Count	2	9	11
		Expected Count	2.4	8.6	11.0
		Column %	18.2%	22.5%	21.6%
		Standardized Residual	-.2	.1	
	36 - 40 years	Count	5	13	18
		Expected Count	3.9	14.1	18.0
		Column %	45.5%	32.5%	35.3%
		Standardized Residual	.6	-.3	
	Older than 40 years	Count	3	10	13
		Expected Count	2.8	10.2	13.0
		Column %	27.3%	25.0%	25.5%
		Standardized Residual	.1	-.1	
Total		Count	11	40	51
		Expected Count	11.0	40.0	51.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	1.084[a]	3	.781	.825		
Likelihood Ratio	1.156	3	.763	.780		
Fisher's Exact Test	1.039			.850		
Linear-by-Linear Association	.633[b]	1	.426	.520	.267	.096
N of Valid Cases	51					

a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is 1.94.
b. The standardized statistic is -.796.

The results presented in **Table 4.9** are almost similar to the results in **Table 4.8** were 40 participants agreed that in all age categories agreed that factors such as perceptual, cognitive and physical abilities of nurses; affected the quality of effective bedside clinical handover and only 11 participants disagreed.

The Fisher's scale test resulted in a p-value of 0.850. Again, the null hypothesis is rejected and conclude that there is no significant association between the two variables in Q2 and Q10.5.2.

Table 4.10 Age distribution in relation to Nurse Factors: (Situation awareness) affecting effective clinical handover

Q2r: Age * Q10.5.4r: Situation awareness Crosstabulation

			Q10.5.4r: Situation awareness		
			Disagree	Agree	Total
Q2r: Age	26 - 30 years	Count	2	7	9
		Expected Count	2.6	6.4	9.0
		Column %	13.3%	19.4%	17.6%
		Standardized Residual	-.4	.3	
	31 - 35 years	Count	3	8	11
		Expected Count	3.2	7.8	11.0
		Column %	20.0%	22.2%	21.6%
		Standardized Residual	-.1	.1	
	36 - 40 years	Count	5	13	18
		Expected Count	5.3	12.7	18.0
		Column %	33.3%	36.1%	35.3%
		Standardized Residual	-.1	.1	
	Older than 40 years	Count	5	8	13
		Expected Count	3.8	9.2	13.0
		Column %	33.3%	22.2%	25.5%
		Standardized Residual	.6	-.4	
Total		Count	15	36	51
		Expected Count	15.0	36.0	51.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	.784[a]	3	.853	.862		
Likelihood Ratio	.772	3	.856	.881		
Fisher's Exact Test	.855			.881		
Linear-by-Linear Association	.629[b]	1	.428	.469	.262	.086
N of Valid Cases	51					

a. 3 cells (37.5%) have expected count less than 5. The minimum expected count is 2.65.
b. The standardized statistic is -.793.

There were 15 participants who disagreed with the statement given in Table 4.10 and 36 participants agreed that situation awareness was one of the nurses' factors identified as affecting effective bedside clinical handover.

A significant statistical difference (p=0.881) was observed and it indicates an insignificant association between the two variables.

Table 4.11 Age distribution of Registered Nurses in relation to Supervisor involvement during bedside clinical handover

Q3: How many years of experience do you have as a Registered Nurse? * Q7.4r: Supervisor Crosstabulation

			Q7.4r: Supervisor		
			Disagree	Agree	Total
Q3: How many years of experience do you have as a Registered Nurse?	Less than 2 years	Count	2	6	8
		Expected Count	3.6	4.4	8.0
		Column %	8.7%	21.4%	15.7%
		Standardized Residual	-.8	.8	
	2-5 years	Count	6	7	13
		Expected Count	5.9	7.1	13.0
		Column %	26.1%	25.0%	25.5%
		Standardized Residual	.1	-.1	
	6-10 years	Count	8	6	14
		Expected Count	6.3	7.7	14.0
		Column %	34.8%	21.4%	27.5%
		Standardized Residual	.7	-.6	
	11-15 years	Count	4	5	9
		Expected Count	4.1	4.9	9.0
		Column %	17.4%	17.9%	17.6%
		Standardized Residual	.0	.0	
	16 years and above	Count	3	4	7
		Expected Count	3.2	3.8	7.0
		Column %	13.0%	14.3%	13.7%
		Standardized Residual	-.1	.1	
Total		Count	23	28	51
		Expected Count	23.0	28.0	51.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	2.147[a]	4	.709	.742		
Likelihood Ratio	2.220	4	.695	.725		
Fisher's Exact Test	2.206			.751		
Linear-by-Linear Association	.357[b]	1	.550	.585	.314	.073
N of Valid Cases	51					

a. 6 cells (60.0%) have expected count less than 5. The minimum expected count is 3.16.
b. The standardized statistic is -.597.

A total of 28 registered nurses in different age category agreed that their supervisors are involved during bedside clinical handover and only 23 participants disagreed with the above statement.

Here Fisher's exact test resulted in a p-value of 0.751. Since 0.751 is greater than 0.05, we can conclude that there is no significant association between the statement given in Q3 and Q7.4 in Table 4.11.

Table 4.12 Participants' years of experience in relation to assertiveness during handover

Q3: How many years of experience do you have as a Registered Nurse? * Q8.5r: Assertiveness whilst handing over Crosstabulation

			Q8.5r: Assertiveness whilst handing over		
			Disagree	Agree	Total
Q3: How many years of experience do you have as a Registered Nurse?	Less than 2 years	Count	1	7	8
		Expected Count	1.9	6.1	8.0
		Column %	8.3%	17.9%	15.7%
		Standardized Residual	-.6	.4	
	2-5 years	Count	2	11	13
		Expected Count	3.1	9.9	13.0
		Column %	16.7%	28.2%	25.5%
		Standardized Residual	-.6	.3	
	6-10 years	Count	3	11	14
		Expected Count	3.3	10.7	14.0
		Column %	25.0%	28.2%	27.5%
		Standardized Residual	-.2	.1	
	11-15 years	Count	3	6	9
		Expected Count	2.1	6.9	9.0
		Column %	25.0%	15.4%	17.6%
		Standardized Residual	.6	-.3	
	16 years and above	Count	3	4	7
		Expected Count	1.6	5.4	7.0
		Column %	25.0%	10.3%	13.7%
		Standardized Residual	1.1	-.6	
Total		Count	12	39	51
		Expected Count	12.0	39.0	51.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	2.989[a]	4	.560	.606		
Likelihood Ratio	2.894	4	.576	.631		
Fisher's Exact Test	2.957			.590		
Linear-by-Linear Association	2.755[b]	1	.097	.120	.064	.027
N of Valid Cases	51					

a. 5 cells (50.0%) have expected count less than 5. The minimum expected count is 1.65.
b. The standardized statistic is -1.660.

The majority of participants (n=39) in Q3 agreed that they observed assertiveness (Q8.5) during bedside clinical handover and only 12 participants disagreed to that statement.

Again, there is no statistical significance as the p-value = 0.590, therefore there is no significant association between the two statements in Q3 and Q8.5.

Table 4.13 Participants' years of experience in relation to the ability to clarify information during handover

Q3: How many years of experience do you have as a Registered Nurse? * Q9.1r: During handover: I am able to clarify information given to me Crosstabulation

			Q9.1r: During handover: I am able to clarify information given to me		
			Disagree	Agree	Total
Q3: How many years of experience do you have as a Registered Nurse?	Less than 2 years	Count	0	8	8
		Expected Count	.5	7.5	8.0
		Column %	0.0%	16.7%	15.7%
		Standardized Residual	-.7	.2	
	2-5 years	Count	1	12	13
		Expected Count	.8	12.2	13.0
		Column %	33.3%	25.0%	25.5%
		Standardized Residual	.3	-.1	
	6-10 years	Count	1	13	14
		Expected Count	.8	13.2	14.0
		Column %	33.3%	27.1%	27.5%
		Standardized Residual	.2	.0	
	11-15 years	Count	0	9	9
		Expected Count	.5	8.5	9.0
		Column %	0.0%	18.8%	17.6%
		Standardized Residual	-.7	.2	
	16 years and above	Count	1	6	7
		Expected Count	.4	6.6	7.0
		Column %	33.3%	12.5%	13.7%
		Standardized Residual	.9	-.2	
Total		Count	3	48	51
		Expected Count	3.0	48.0	51.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	2.072[a]	4	.722	.851		
Likelihood Ratio	2.822	4	.588	.851		
Fisher's Exact Test	2.317			.851		
Linear-by-Linear Association	.399[b]	1	.528	.652	.346	.147
N of Valid Cases	51					

a. 5 cells (50.0%) have expected count less than 5. The minimum expected count is .41.
b. The standardized statistic is -.631.

An overwhelming majority of participants (n=48) agreed that they are able to clarify information given to them during bedside clinical handover regardless of their years of experience as registered nurses and only 3 participants disagreed to the statement in Q9.1.

Here the test resulted in a p-value of 0.851 which is greater than 0.05, therefore, there is no statistically significant association between the two statements.

Table 4.14 Participants' years of experience in relation to education, competencies and training (Nurse Factors affecting effective bedside clinical handover)

Q3: How many years of experience do you have as a Registered Nurse? * Q10.5.1r: Nurse Factors: Education, competencies and training Crosstabulation

			Q10.5.1r: Nurse Factors: Education, competencies and training		
			Disagree	Agree	Total
Q3: How many years of experience do you have as a Registered Nurse?	Less than 2 years	Count	1	7	8
		Expected Count	1.6	6.4	8.0
		Column %	10.0%	17.1%	15.7%
		Standardized Residual	-.5	.2	
	2-5 years	Count	1	12	13
		Expected Count	2.5	10.5	13.0
		Column %	10.0%	29.3%	25.5%
		Standardized Residual	-1.0	.5	
	6-10 years	Count	3	11	14
		Expected Count	2.7	11.3	14.0
		Column %	30.0%	26.8%	27.5%
		Standardized Residual	.2	-.1	
	11-15 years	Count	3	6	9
		Expected Count	1.8	7.2	9.0
		Column %	30.0%	14.6%	17.6%
		Standardized Residual	.9	-.5	
	16 years and above	Count	2	5	7
		Expected Count	1.4	5.6	7.0
		Column %	20.0%	12.2%	13.7%
		Standardized Residual	.5	-.3	
Total		Count	10	41	51
		Expected Count	10.0	41.0	51.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	2.889[a]	4	.577	.638		
Likelihood Ratio	3.021	4	.554	.665		
Fisher's Exact Test	3.052			.608		
Linear-by-Linear Association	2.050[b]	1	.152	.169	.100	.040
N of Valid Cases	51					

a. 5 cells (50.0%) have expected count less than 5. The minimum expected count is 1.37.
b. The standardized statistic is -1.432.

There were 41 participants who agreed with the statement in Q10.5.1 and 10 of the participants disagreed with the statement in Q10.5.1.

There was statistically significant relationship between years of experience and nurse factors (education, competencies and training), indicating that the relationship existed between the two variables. However, as the p-value indicated 0.608 greater than the expected 0.05 it implies that there does not exist an association between level of experience and education, competencies and training as described in 10.5.1.

Table 4.15 Participants' years of experience in relation to perceptual, cognitive and physical abilities (Nurse Factors affecting effective bedside clinical handover)

Q3: How many years of experience do you have as a Registered Nurse? * Q10.5.2r: Perceptual, cognitive and physical abilities Crosstabulation

			Q10.5.2r: Perceptual, cognitive and physical abilities		
			Disagree	Agree	Total
Q3: How many years of experience do you have as a Registered Nurse?	Less than 2 years	Count	1	7	8
		Expected Count	1.7	6.3	8.0
		Column %	9.1%	17.5%	15.7%
		Standardized Residual	-.6	.3	
	2-5 years	Count	2	11	13
		Expected Count	2.8	10.2	13.0
		Column %	18.2%	27.5%	25.5%
		Standardized Residual	-.5	.3	
	6-10 years	Count	4	10	14
		Expected Count	3.0	11.0	14.0
		Column %	36.4%	25.0%	27.5%
		Standardized Residual	.6	-.3	
	11-15 years	Count	2	7	9
		Expected Count	1.9	7.1	9.0
		Column %	18.2%	17.5%	17.6%
		Standardized Residual	.0	.0	
	16 years and above	Count	2	5	7
		Expected Count	1.5	5.5	7.0
		Column %	18.2%	12.5%	13.7%
		Standardized Residual	.4	-.2	
Total		Count	11	40	51
		Expected Count	11.0	40.0	51.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	1.294[a]	4	.862	.890		
Likelihood Ratio	1.329	4	.856	.891		
Fisher's Exact Test	1.489			.880		
Linear-by-Linear Association	.774[b]	1	.379	.428	.229	.072
N of Valid Cases	51					

a. 5 cells (50.0%) have expected count less than 5. The minimum expected count is 1.51.
b. The standardized statistic is -.880.

Again, 40 participants agreed that perceptual, cognitive and physical abilities are contributing nurse factors affecting effective clinical handover and 10 of the respondents disagreed to the statement in 10.5.2.

The Fisher's exact test revealed a p-value of 0.880 therefore there is no significant association between participants' years of experience and the nurse factors described in Q10.5.2.

Table 4.16 Participants' years of experience in relation to situation awareness (Nurse Factors affecting effective bedside clinical handover)

Q3: How many years of experience do you have as a Registered Nurse? * Q10.5.4r: Situation awareness Crosstabulation

			Q10.5.4r: Situation awareness		
			Disagree	Agree	Total
Q3: How many years of experience do you have as a Registered Nurse?	Less than 2 years	Count	1	7	8
		Expected Count	2.4	5.6	8.0
		Column %	6.7%	19.4%	15.7%
		Standardized Residual	-.9	.6	
	2-5 years	Count	4	9	13
		Expected Count	3.8	9.2	13.0
		Column %	26.7%	25.0%	25.5%
		Standardized Residual	.1	-.1	
	6-10 years	Count	4	10	14
		Expected Count	4.1	9.9	14.0
		Column %	26.7%	27.8%	27.5%
		Standardized Residual	-.1	.0	
	11-15 years	Count	3	6	9
		Expected Count	2.6	6.4	9.0
		Column %	20.0%	16.7%	17.6%
		Standardized Residual	.2	-.1	
	16 years and above	Count	3	4	7
		Expected Count	2.1	4.9	7.0
		Column %	20.0%	11.1%	13.7%
		Standardized Residual	.7	-.4	
Total		Count	15	36	51
		Expected Count	15.0	36.0	51.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	1.795[a]	4	.773	.799		
Likelihood Ratio	1.945	4	.746	.783		
Fisher's Exact Test	1.930			.788		
Linear-by-Linear Association	1.319[b]	1	.251	.281	.153	.050
N of Valid Cases	51					

a. 6 cells (60.0%) have expected count less than 5. The minimum expected count is 2.06.
b. The standardized statistic is -1.148.

The Fisher's exact test resulted in a p-value of 0.788. The results show a statistically insignificant relationship between the two variables in Q3 and Q10.5.4.

Table 4.16 presents the scores of situation awareness in relation to years of experience and 36 participants agreed that it affected effective clinical handover and 15 of the participants disagreed.

Table 4.17 The relationship between home language and the ability to clarify information during handover

Q4r: What is your language? * Q9.1r: During handover: I am able to clarify information given to me Crosstabulation

			Q9.1r: During handover: I am able to clarify information given to me		
			Disagree	Agree	Total
Q4r: What is your language?	African language	Count	1	40	41
		Expected Count	2.6	38.4	41.0
		Column %	33.3%	88.9%	85.4%
		Standardized Residual	-1.0	.3	
	Afrikaans or English	Count	2	5	7
		Expected Count	.4	6.6	7.0
		Column %	66.7%	11.1%	14.6%
		Standardized Residual	2.4	-.6	
Total		Count	3	45	48
		Expected Count	3.0	45.0	48.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	6.969[a]	1	.008	.052	.052	
Continuity Correction[b]	3.222	1	.073			
Likelihood Ratio	4.666	1	.031	.052	.052	
Fisher's Exact Test				.052	.052	
Linear-by-Linear Association	6.823[c]	1	.009	.052	.052	.050
N of Valid Cases	48					

a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is .44.
b. Computed only for a 2x2 table
c. The standardized statistic is -2.612.

There was 1 person whose home language was an African language, who disagreed with the statement given in Q9.1 and 40 participants with an African language as home language who agreed with the statement. In total there were 41 persons with an African language as home language and 7 who speak Afrikaans or English at home. Three of the participants disagreed with statement Q9.1 and 45 agreed with the statement. To test whether there exists a relationship or an association between home languages and whether the participants agree or disagree with the statement in Q9.1 I performed a statistical test called Fisher's exact test.

The p-value is 0.052 and implies that there does not exist a significant association between home language and the participants' action described in Q9.1.

Table 4.18 The level of understanding information provided about their patients in relation to home language

Q4r: What is your language? * Q9.2r: I am provided with sufficient information about my patient Crosstabulation

			Q9.2r: I am provided with sufficient information about my patient		
			Disagree	Agree	Total
Q4r: What is your language?	African language	Count	7	34	41
		Expected Count	8.5	32.5	41.0
		Column %	70.0%	89.5%	85.4%
		Standardized Residual	-.5	.3	
	Afrikaans or English	Count	3	4	7
		Expected Count	1.5	5.5	7.0
		Column %	30.0%	10.5%	14.6%
		Standardized Residual	1.3	-.7	
Total		Count	10	38	48
		Expected Count	10.0	38.0	48.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	2.410[a]	1	.121	.147	.147	
Continuity Correction[b]	1.100	1	.294			
Likelihood Ratio	2.089	1	.148	.318	.147	
Fisher's Exact Test				.147	.147	
Linear-by-Linear Association	2.360[c]	1	.124	.147	.147	.120
N of Valid Cases	48					

a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 1.46.
b. Computed only for a 2x2 table
c. The standardized statistic is -1.536.

Out of a total of 41 participants whose home language was African, 34 agreed that they were provided with sufficient information about patients in their care and 7 participants disagreed with the statement given in Q9.2. Of the 7 who used English and Afrikaans as their home language, 3 disagreed and 4 agreed to the statement in Q9.2.

The Fisher's exact test revealed a p-value of 0.147 which is greater than 0.05, therefore there was no significant association between the home language and the results achieved in Q9.2.

Table 4.19 The opportunity to ask questions about things not understood during clinical handover in relation to home language

Q4r: What is your language? * Q9.4r: I have the opportunity to ask questions about the things I do not understand Crosstabulation

			Q9.4r: I have the opportunity to ask questions about the things I do not understand		
			Disagree	Agree	Total
Q4r: What is your language?	African language	Count	6	35	41
		Expected Count	6.8	34.2	41.0
		Column %	75.0%	87.5%	85.4%
		Standardized Residual	-.3	.1	
	Afrikaans or English	Count	2	5	7
		Expected Count	1.2	5.8	7.0
		Column %	25.0%	12.5%	14.6%
		Standardized Residual	.8	-.3	
Total		Count	8	40	48
		Expected Count	8.0	40.0	48.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	.836[a]	1	.360	.583	.330	
Continuity Correction[b]	.134	1	.715			
Likelihood Ratio	.741	1	.389	.583	.330	
Fisher's Exact Test				.330	.330	
Linear-by-Linear Association	.819[c]	1	.366	.583	.330	.250
N of Valid Cases	48					

a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 1.17.
b. Computed only for a 2x2 table
c. The standardized statistic is -.905.

The majority (n=35) of participants using African language agreed with the statement in Q 9.4, Table 4.19 in comparison to 6 participants using the same language. In a total of 7 participants using English and Afrikaans as their home language, only 2 disagreed with the statement in Q9.4 whilst 5 of them agreed to the statement.

Here the test resulted in a p-value of 0.330 and can be concluded that there is not significant association between Q4 and Q9.6.

Table 4.20 Home language in relation to whether information presented was easy to follow

Q4r: What is your language? * Q9.6r: The way in which information is presented is easy to follow Crosstabulation

			Q9.6r: The way in which information is presented is easy to follow		
			Disagree	Agree	Total
Q4r: What is your language?	African language	Count	9	32	41
		Expected Count	10.3	30.8	41.0
		Column %	75.0%	88.9%	85.4%
		Standardized Residual	-.4	.2	
	Afrikaans or English	Count	3	4	7
		Expected Count	1.8	5.3	7.0
		Column %	25.0%	11.1%	14.6%
		Standardized Residual	.9	-.5	
Total		Count	12	36	48
		Expected Count	12.0	36.0	48.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	1.394[a]	1	.238	.345	.231	
Continuity Correction[b]	.502	1	.479			
Likelihood Ratio	1.268	1	.260	.345	.231	
Fisher's Exact Test				.345	.231	
Linear-by-Linear Association	1.365[c]	1	.243	.345	.231	.176
N of Valid Cases	48					

a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 1.75.
b. Computed only for a 2x2 table
c. The standardized statistic is -1.168.

Thirty-two (32) participants using African home language agreed that information that was presented during handover was easy to follow and only 9 disagreed. Of the 7 participants using Afrikaans or English as home language, 4 agreed to the statement in Q9.6 and 3 disagreed.

The Fisher's test resulted in a p-value (0.345) that is greater than 0.05. Therefore, there is no significant correlation between the home languages and the statement in Q9.6.

Table 4.21 Focus of attention as a communication skill observed by participants when handover is done at bedside

Q6.1r: The current bedside clinical handover is done at bedside * Q8.3r: Focus of attention Crosstabulation

			Q8.3r: Focus of attention		
			Disagree	Agree	Total
Q6.1r: The current bedside clinical handover is done at bedside	Disagree	Count	1	3	4
		Expected Count	.9	3.1	4.0
		Column %	8.3%	7.7%	7.8%
		Standardized Residual	.1	.0	
	Agree	Count	11	36	47
		Expected Count	11.1	35.9	47.0
		Column %	91.7%	92.3%	92.2%
		Standardized Residual	.0	.0	
Total		Count	12	39	51
		Expected Count	12.0	39.0	51.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	.005[a]	1	.942	1.000	.671	
Continuity Correction[b]	.000	1	1.000			
Likelihood Ratio	.005	1	.943	1.000	.671	
Fisher's Exact Test				1.000	.671	
Linear-by-Linear Association	.005[c]	1	.943	1.000	.671	.439
N of Valid Cases	51					

a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is .94.
b. Computed only for a 2x2 table
c. The standardized statistic is .072.

The participants (n=4) who disagreed that current handover was done at the bedside, 3 agreed that there was focus on attention as a communication skill and only 1 disagreed. Those that agreed (n=47) to the statement in Q6.1, 36 participants agreed that there was focus of attention during bedside clinical handover and 11 participants disagreed.

Here Fisher's exact test resulted in a p-value of 1.000. Since the p-value is greater than 0.50, we conclude that there is no significant association between the two statements given in Q6.1 and Q8.3.

Table 4.22 Time efficiency in relation to focus of attention

Q6.2r: Is time efficient * Q8.3r: Focus of attention Crosstabulation

			Q8.3r: Focus of attention		
			Disagree	Agree	Total
Q6.2r: Is time efficient	Disagree	Count	7	3	10
		Expected Count	2.4	7.6	10.0
		Column %	58.3%	7.7%	19.6%
		Standardized Residual	3.0	-1.7	
	Agree	Count	5	36	41
		Expected Count	9.6	31.4	41.0
		Column %	41.7%	92.3%	80.4%
		Standardized Residual	-1.5	.8	
Total		Count	12	39	51
		Expected Count	12.0	39.0	51.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	14.929[a]	1	.000	.001	.001	
Continuity Correction[b]	11.889	1	.001			
Likelihood Ratio	13.028	1	.000	.001	.001	
Fisher's Exact Test				.001	.001	
Linear-by-Linear Association	14.636[c]	1	.000	.001	.001	.001
N of Valid Cases	51					

a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 2.35.
b. Computed only for a 2x2 table
c. The standardized statistic is 3.826.

There were 7 participants who disagreed with statement given in Q6.2 and also disagreed with the statement given in Q8.3. 36 persons agreed with both the statements in Q6.2 and Q8.3.

Here Fisher's exact test resulted in a p-value of 0.001. Since 0.001 is smaller than 0.05, we conclude that there is a significant association between the two statements given in Q6.2 and Q8.3.

Table 4.23 Consistency of bedside handover for each patient in relation to focus of attention

Q6.3r: Is consistent for each patient * Q8.3r: Focus of attention Crosstabulation

			Q8.3r: Focus of attention		
			Disagree	Agree	Total
Q6.3r: Is consistent for each patient	Disagree	Count	6	3	9
		Expected Count	2.1	6.9	9.0
		Column %	50.0%	7.7%	17.6%
		Standardized Residual	2.7	-1.5	
	Agree	Count	6	36	42
		Expected Count	9.9	32.1	42.0
		Column %	50.0%	92.3%	82.4%
		Standardized Residual	-1.2	.7	
Total		Count	12	39	51
		Expected Count	12.0	39.0	51.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	11.302[a]	1	.001	.003	.003	
Continuity Correction[b]	8.578	1	.003			
Likelihood Ratio	9.744	1	.002	.003	.003	
Fisher's Exact Test				.003	.003	
Linear-by-Linear Association	11.081[c]	1	.001	.003	.003	.003
N of Valid Cases	51					

a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 2.12.
b. Computed only for a 2x2 table
c. The standardized statistic is 3.329.

Six participants disagreed that handover at bedside was consistent for each patient and also disagreed that there was focus on attention. The majority (n=36) agreed with both statement in Q6.3 and Q8.3.

Again, the p-value = 0.003 which is smaller than p-value of 0.50. We conclude that there is a significant association between the two statements.

Table 4.24 Current bedside handover is guided by a standardised tool and there is focus of attention

Q6.4r: Is guided by a standardised tool * Q8.3r: Focus of attention Crosstabulation

			Q8.3r: Focus of attention		
			Disagree	Agree	Total
Q6.4r: Is guided by a standardised tool	Disagree	Count	6	7	13
		Expected Count	3.1	9.9	13.0
		Column %	50.0%	17.9%	25.5%
		Standardized Residual	1.7	-.9	
	Agree	Count	6	32	38
		Expected Count	8.9	29.1	38.0
		Column %	50.0%	82.1%	74.5%
		Standardized Residual	-1.0	.5	
Total		Count	12	39	51
		Expected Count	12.0	39.0	51.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	4.963[a]	1	.026	.053	.036	
Continuity Correction[b]	3.419	1	.064			
Likelihood Ratio	4.557	1	.033	.053	.036	
Fisher's Exact Test				.053	.036	
Linear-by-Linear Association	4.866[c]	1	.027	.053	.036	.030
N of Valid Cases	51					

a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 3.06.
b. Computed only for a 2x2 table
c. The standardized statistic is 2.206.

Six participants disagreed with the statement s Q6.4 and also disagreed with the statement in Q8.3. However, the majority of participants (n=32) agreed that handover is guided by a standardised tool and there is focus of attention during bedside handover.

The Fisher's test resulted in a p-value of 0.053 which just greater than a p-value of 0.05. We conclude that there is statistically insignificant association between statements in Q6.4 and Q8.3.

Table 4.25 Focus of attention and whether bedside handover addresses patient safety issues

Q6.5r: Addresses patient safety issues e.g. fall risk, pressure ulcers etc. * Q8.3r: Focus of attention Crosstabulation

			Q8.3r: Focus of attention		
			Disagree	Agree	Total
Q6.5r: Addresses patient safety issues e.g. fall risk, pressure ulcers etc.	Disagree	Count	4	1	5
		Expected Count	1.2	3.8	5.0
		Column %	33.3%	2.6%	9.8%
		Standardized Residual	2.6	-1.4	
	Agree	Count	8	38	46
		Expected Count	10.8	35.2	46.0
		Column %	66.7%	97.4%	90.2%
		Standardized Residual	-.9	.5	
Total		Count	12	39	51
		Expected Count	12.0	39.0	51.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	9.825[a]	1	.002	.009	.009	
Continuity Correction[b]	6.653	1	.010			
Likelihood Ratio	8.139	1	.004	.009	.009	
Fisher's Exact Test				.009	.009	
Linear-by-Linear Association	9.632[c]	1	.002	.009	.009	.008
N of Valid Cases	51					

a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 1.18.
b. Computed only for a 2x2 table
c. The standardized statistic is 3.104.

During bedside handover, 4 participants disagreed that there is focus of attention and also disagreed that handover addresses patient safety issues. 38 participants agreed to both statements in Q6.5 and Q8.3.

The Fisher's exact test resulted in a p-value of 0.009 which is smaller than p-value of 0.05. There is a significant association between the two statements in Q6.5 and Q8.3.

Table 4.26 There is interaction of staff when handover is done at the bedside

Q6.1r: The current bedside clinical handover is done at bedside * Q8.4r: Interaction of staff (Teamwork with trust) Crosstabulation

			Q8.4r: Interaction of staff (Teamwork with trust)		
			Disagree	Agree	Total
Q6.1r: The current bedside clinical handover is done at bedside	Disagree	Count	1	3	4
		Expected Count	.6	3.4	4.0
		Column %	12.5%	7.0%	7.8%
		Standardized Residual	.5	-.2	
	Agree	Count	7	40	47
		Expected Count	7.4	39.6	47.0
		Column %	87.5%	93.0%	92.2%
		Standardized Residual	-.1	.1	
Total		Count	8	43	51
		Expected Count	8.0	43.0	51.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	.285[a]	1	.594	1.000	.506	
Continuity Correction[b]	.000	1	1.000			
Likelihood Ratio	.252	1	.615	1.000	.506	
Fisher's Exact Test				.506	.506	
Linear-by-Linear Association	.279[c]	1	.597	1.000	.506	.395
N of Valid Cases	51					

a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is .63.
b. Computed only for a 2x2 table
c. The standardized statistic is .528.

Seven participants agreed that current handover is done at the bedside 40 agreed that there is interaction of staff during bedside clinical handover and only one participant disagreed that neither bedside handover was done at the bedside nor interaction of staff took place during bedside clinical handover.

The Fisher's exact test resulted in a p-value of 0.506 which is slightly higher than a p-value of 0.50. We accept that there is no association between the two variables in Q6.1 and Q8.4.

Table 4.27 Whether bedside clinical handover is time efficient in relation to interaction of staff

Q6.2r: Is time efficient * Q8.4r: Interaction of staff (Teamwork with trust) Crosstabulation

			Q8.4r: Interaction of staff (Teamwork with trust)		
			Disagree	Agree	Total
Q6.2r: Is time efficient	Disagree	Count	5	5	10
		Expected Count	1.6	8.4	10.0
		Column %	62.5%	11.6%	19.6%
		Standardized Residual	2.7	-1.2	
	Agree	Count	3	38	41
		Expected Count	6.4	34.6	41.0
		Column %	37.5%	88.4%	80.4%
		Standardized Residual	-1.4	.6	
Total		Count	8	43	51
		Expected Count	8.0	43.0	51.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	11.074[a]	1	.001	.004	.004	
Continuity Correction[b]	8.082	1	.004			
Likelihood Ratio	8.984	1	.003	.004	.004	
Fisher's Exact Test				.004	.004	
Linear-by-Linear Association	10.857[c]	1	.001	.004	.004	.004
N of Valid Cases	51					

a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 1.57.
b. Computed only for a 2x2 table
c. The standardized statistic is 3.295.

A total of 43 participants agreed that bedside clinical handover was time efficient and that it involved interaction of staff and only 5 participants disagreed with both statements in Q6.2 and Q8.4.

The results showed a significant statistical association between the two variables presented in Table 4.27 with a p-value of 0.004.

Table 4.28 Rating for interaction of staff with consistency of bedside clinical handover for each patient

Q6.3r: Is consistent for each patient * Q8.4r: Interaction of staff (Teamwork with trust) Crosstabulation

			Q8.4r: Interaction of staff (Teamwork with trust)		
			Disagree	Agree	Total
Q6.3r: Is consistent for each patient	Disagree	Count	5	4	9
		Expected Count	1.4	7.6	9.0
		Column %	62.5%	9.3%	17.6%
		Standardized Residual	3.0	-1.3	
	Agree	Count	3	39	42
		Expected Count	6.6	35.4	42.0
		Column %	37.5%	90.7%	82.4%
		Standardized Residual	-1.4	.6	
Total		Count	8	43	51
		Expected Count	8.0	43.0	51.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	13.135[a]	1	.000	.002	.002	
Continuity Correction[b]	9.729	1	.002			
Likelihood Ratio	10.332	1	.001	.002	.002	
Fisher's Exact Test				.002	.002	
Linear-by-Linear Association	12.877[c]	1	.000	.002	.002	.002
N of Valid Cases	51					

a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 1.41.
b. Computed only for a 2x2 table
c. The standardized statistic is 3.588.

The majority of participants (n=39) agreed that bedside clinical handover is consistent for each patient and 4 agreed that there was interaction of staff during handover and only 5 participants disagreed with both statements in **Table 4.28**.

The results showed a statistically significant association (p=0.002) between the two statements given in Q6.3 and Q8.4.

Table 4.29 Analysis of guided standardised tool and interaction of staff

Q6.4r: Is guided by a standardised tool * Q8.4r: Interaction of staff (Teamwork with trust) Crosstabulation

			Q8.4r: Interaction of staff (Teamwork with trust)		
			Disagree	Agree	Total
Q6.4r: Is guided by a standardised tool	Disagree	Count	4	9	13
		Expected Count	2.0	11.0	13.0
		Column %	50.0%	20.9%	25.5%
		Standardized Residual	1.4	-.6	
	Agree	Count	4	34	38
		Expected Count	6.0	32.0	38.0
		Column %	50.0%	79.1%	74.5%
		Standardized Residual	-.8	.3	
Total		Count	8	43	51
		Expected Count	8.0	43.0	51.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	3.001[a]	1	.083	.179	.102	
Continuity Correction[b]	1.666	1	.197			
Likelihood Ratio	2.690	1	.101	.179	.102	
Fisher's Exact Test				.179	.102	
Linear-by-Linear Association	2.942[c]	1	.086	.179	.102	.083
N of Valid Cases	51					

a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 2.04.
b. Computed only for a 2x2 table
c. The standardized statistic is 1.715.

The participants in Table 4.29 (n=34) agree that handover is guided by the standardised tool and 9 participants also agreed that there was interaction of staff during bedside clinical handover. Four participants disagreed with the statement in Q6.4 and Q8.4.

The Fisher's exact test resulted in a p-value of 0.179 which conclude that there is no significant association between the two variables in Q6.4 and Q8.4.

Table 4.30 Analysis of whether bedside clinical handover addresses safety issues in relation to interaction of staff

Q6.5r: Addresses patient safety issues e.g. fall risk, pressure ulcers etc. * Q8.4r: Interaction of staff (Teamwork with trust) Crosstabulation

			Q8.4r: Interaction of staff (Teamwork with trust)		
			Disagree	Agree	Total
Q6.5r: Addresses patient safety issues e.g. fall risk, pressure ulcers etc.	Disagree	Count	2	3	5
		Expected Count	.8	4.2	5.0
		Column %	25.0%	7.0%	9.8%
		Standardized Residual	1.4	-.6	
	Agree	Count	6	40	46
		Expected Count	7.2	38.8	46.0
		Column %	75.0%	93.0%	90.2%
		Standardized Residual	-.5	.2	
Total		Count	8	43	51
		Expected Count	8.0	43.0	51.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	2.478[a]	1	.115	.170	.170	
Continuity Correction[b]	.859	1	.354			
Likelihood Ratio	1.958	1	.162	.170	.170	
Fisher's Exact Test				.170	.170	
Linear-by-Linear Association	2.429[c]	1	.119	.170	.170	.147
N of Valid Cases	51					

a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is .78.
b. Computed only for a 2x2 table
c. The standardized statistic is 1.559.

Forty participants agreed with the statement in Q6.5 and Q8.4. Only 7 participants disagreed with both statements given in Q6.5 and Q8.4.

The Fisher's exact test resulted in a p-value of 0.170. Since p>0.50, we conclude that there is no significant association between the two statements given in Q6.4 and Q8.4.

Table 4.31 Participants' response on whether they could obtain handover information on the patient records during bedside clinical handover

Q6.1r: The current bedside clinical handover is done at bedside * Q9.9r: I could obtain handover information on the patient records Crosstabulation

			Q9.9r: I could obtain handover information on the patient records		
			Disagree	Agree	Total
Q6.1r: The current bedside clinical handover is done at bedside	Disagree	Count	2	2	4
		Expected Count	1.9	2.1	4.0
		Column %	8.3%	7.4%	7.8%
		Standardized Residual	.1	-.1	
	Agree	Count	22	25	47
		Expected Count	22.1	24.9	47.0
		Column %	91.7%	92.6%	92.2%
		Standardized Residual	.0	.0	
Total		Count	24	27	51
		Expected Count	24.0	27.0	51.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	.015[a]	1	.902	1.000	.649	
Continuity Correction[b]	.000	1	1.000			
Likelihood Ratio	.015	1	.902	1.000	.649	
Fisher's Exact Test				1.000	.649	
Linear-by-Linear Association	.015[c]	1	.903	1.000	.649	.388
N of Valid Cases	51					

a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 1.88.
b. Computed only for a 2x2 table
c. The standardized statistic is .122.

There were 2 participants who disagreed with statement given in Q6.1 and also disagreed with the statement in Q9.9. 25 participants agreed with both the statement in Q6.1 and Q9.9.

Again, the Fisher's exact test resulted in a p-value of 1.000 which is greater than 0.05. Therefore, there is no significant association between the two statements given in Q6.1 and Q9.9.

Table 4.32 Time efficiency of bedside clinical handover in relation to obtaining information on the patient records

Q6.2r: Is time efficient * Q9.9r: I could obtain handover information on the patient records Crosstabulation

			Q9.9r: I could obtain handover information on the patient records		
			Disagree	Agree	Total
Q6.2r: Is time efficient	Disagree	Count	6	4	10
		Expected Count	4.7	5.3	10.0
		Column %	25.0%	14.8%	19.6%
		Standardized Residual	.6	-.6	
	Agree	Count	18	23	41
		Expected Count	19.3	21.7	41.0
		Column %	75.0%	85.2%	80.4%
		Standardized Residual	-.3	.3	
Total		Count	24	27	51
		Expected Count	24.0	27.0	51.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	.836[a]	1	.360	.485	.287	
Continuity Correction[b]	.315	1	.575			
Likelihood Ratio	.837	1	.360	.485	.287	
Fisher's Exact Test				.485	.287	
Linear-by-Linear Association	.820[c]	1	.365	.485	.287	.185
N of Valid Cases	51					

a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 4.71.
b. Computed only for a 2x2 table
c. The standardized statistic is .905.

Here, 6 participants disagreed with statement given in Q6.2 and also disagreed with the statement in Q9.9. However, 23 participants agreed with both the statements in Q6.2 and Q9.9.

The Fisher's exact test resulted in a p-value of 0.485. Since p-value is greater than the level of significance (0.485 > 0.05), it implies that there is no significant association between time efficiency and information obtained on the patient records during bedside clinical handover.

Table 4.33 Bedside clinical handover is consistent for each patient as information could be obtained on patient records

Q6.3r: Is consistent for each patient * Q9.9r: I could obtain handover information on the patient records Crosstabulation

			Q9.9r: I could obtain handover information on the patient records		
			Disagree	Agree	Total
Q6.3r: Is consistent for each patient	Disagree	Count	6	3	9
		Expected Count	4.2	4.8	9.0
		Column %	25.0%	11.1%	17.6%
		Standardized Residual	.9	-.8	
	Agree	Count	18	24	42
		Expected Count	19.8	22.2	42.0
		Column %	75.0%	88.9%	82.4%
		Standardized Residual	-.4	.4	
Total		Count	24	27	51
		Expected Count	24.0	27.0	51.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	1.687[a]	1	.194	.276	.176	
Continuity Correction[b]	.866	1	.352			
Likelihood Ratio	1.703	1	.192	.276	.176	
Fisher's Exact Test				.276	.176	
Linear-by-Linear Association	1.653[c]	1	.198	.276	.176	.129
N of Valid Cases	51					

a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 4.24.
b. Computed only for a 2x2 table
c. The standardized statistic is 1.286.

The table above shows that 6 participants disagreed with the statement in Q6.3 and Q9.9. 24 participants agreed to both statements given in Q6.3 and Q9.9.

The p-value resulted in a score of 0.276 greater than the level of significance. We therefore conclude that there is no significant association between the two statements in Q6.3 and Q9.9.

Table 4.34 Whether participants could obtain handover information on the patient records as handover is guided by the standardised tool

Q6.4r: Is guided by a standardised tool * Q9.9r: I could obtain handover information on the patient records Crosstabulation

			Q9.9r: I could obtain handover information on the patient records		
			Disagree	Agree	Total
Q6.4r: Is guided by a standardised tool	Disagree	Count	8	5	13
		Expected Count	6.1	6.9	13.0
		Column %	33.3%	18.5%	25.5%
		Standardized Residual	.8	-.7	
	Agree	Count	16	22	38
		Expected Count	17.9	20.1	38.0
		Column %	66.7%	81.5%	74.5%
		Standardized Residual	-.4	.4	
Total		Count	24	27	51
		Expected Count	24.0	27.0	51.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	1.468[a]	1	.226	.336	.187	
Continuity Correction[b]	.792	1	.374			
Likelihood Ratio	1.473	1	.225	.336	.187	
Fisher's Exact Test				.336	.187	
Linear-by-Linear Association	1.439[c]	1	.230	.336	.187	.125
N of Valid Cases	51					

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.12.
b. Computed only for a 2x2 table
c. The standardized statistic is 1.200.

Eight participants disagreed with both statements given in Q6.4 and Q9.9. 22 of the participants agreed to the statement in Q6.4 and Q9.9.

The Fisher's exact test resulted in p-value of 0.336 which is greater than the level of significance (p=0.05). Therefore, there is no significant association between two statements in Q6.4 and Q9.9.

Table 4.35 Bedside clinical handover addresses patient safety issues and information handed over could be obtained in patient records

Q6.5r: Addresses patient safety issues e.g. fall risk, pressure ulcers etc. * Q9.9r: I could obtain handover information on the patient records Crosstabulation

			Q9.9r: I could obtain handover information on the patient records		
			Disagree	Agree	Total
Q6.5r: Addresses patient safety issues e.g. fall risk, pressure ulcers etc.	Disagree	Count	5	0	5
		Expected Count	2.4	2.6	5.0
		Column %	20.8%	0.0%	9.8%
		Standardized Residual	1.7	-1.6	
	Agree	Count	19	27	46
		Expected Count	21.6	24.4	46.0
		Column %	79.2%	100.0%	90.2%
		Standardized Residual	-.6	.5	
Total		Count	24	27	51
		Expected Count	24.0	27.0	51.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	6.236[a]	1	.013	.018	.018	
Continuity Correction[b]	4.103	1	.043			
Likelihood Ratio	8.153	1	.004	.018	.018	
Fisher's Exact Test				.018	.018	
Linear-by-Linear Association	6.114[c]	1	.013	.018	.018	.018
N of Valid Cases	51					

a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 2.35.
b. Computed only for a 2x2 table
c. The standardized statistic is 2.473.

Five participants disagreed to the statement in Q6.5 and also disagreed to the statement in Q9.9. 27 participants agreed to both statements given in Q6.5 and Q9.9.

The Fisher's exact test resulted in a p-value of 0.018 which is smaller than the level of significance (p=0.05). We therefore conclude that there is a significant association between the two statements given in Q6.5 and Q9.9.

Table 4.36 Multi-tasking due to pending task in relation to training

Q10.1.4r: Multi-tasking due to pending task * Q10.2.2r: Training Crosstabulation

			Q10.2.2r: Training		
			Disagree	Agree	Total
Q10.1.4r: Multi-tasking due to pending task	Disagree	Count	8	3	11
		Expected Count	3.9	7.1	11.0
		Column %	44.4%	9.1%	21.6%
		Standardized Residual	2.1	-1.5	
	Agree	Count	10	30	40
		Expected Count	14.1	25.9	40.0
		Column %	55.6%	90.9%	78.4%
		Standardized Residual	-1.1	.8	
Total		Count	18	33	51
		Expected Count	18.0	33.0	51.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	8.605[a]	1	.003	.006	.006	
Continuity Correction[b]	6.642	1	.010			
Likelihood Ratio	8.346	1	.004	.010	.006	
Fisher's Exact Test				.010	.006	
Linear-by-Linear Association	8.437[c]	1	.004	.006	.006	.005
N of Valid Cases	51					

a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 3.88.
b. Computed only for a 2x2 table
c. The standardized statistic is 2.905.

Eight participants disagreed with the statement in Q10.1.4 and also disagreed with statement in Q10.2.2. Thirty (30) participants agreed with both statements given in Q10.1.4 and Q10.2.2.

The Fisher's exact test resulted in a p-value of 0.010 which is smaller than 0.05, therefore there is a significant association between the two statements given in Q10.1.4 and Q10.2.2.

Table 4.37 Multi-tasking due pending task in relation to patient workload

Q10.1.4r: Multi-tasking due to pending task * Q10.4.1r: Organisational factors: Patient workload Crosstabulation

			Q10.4.1r: Organisational factors: Patient workload		
			Disagree	Agree	Total
Q10.1.4r: Multi-tasking due to pending task	Disagree	Count	8	3	11
		Expected Count	3.2	7.8	11.0
		Column %	53.3%	8.3%	21.6%
		Standardized Residual	2.6	-1.7	
	Agree	Count	7	33	40
		Expected Count	11.8	28.2	40.0
		Column %	46.7%	91.7%	78.4%
		Standardized Residual	-1.4	.9	
Total		Count	15	36	51
		Expected Count	15.0	36.0	51.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	12.675[a]	1	.000	.001	.001	
Continuity Correction[b]	10.154	1	.001			
Likelihood Ratio	11.802	1	.001	.001	.001	
Fisher's Exact Test				.001	.001	
Linear-by-Linear Association	12.426[c]	1	.000	.001	.001	.001
N of Valid Cases	51					

a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 3.24.
b. Computed only for a 2x2 table
c. The standardized statistic is 3.525.

Only eight participants disagreed that multi-tasking due to pending task affects effective clinical handover and disagreed that organisational factors such patient workload affect bedside clinical handover. Thirty-three participants agreed to both statements in Q10.1.4 and Q10.4.1.

The test resulted in a p-value of 0.001 and rejecting the null hypothesis thus concluding that there is a significant association between the two statements given in **Table 4.37**.

Table 4.38 Multi-tasking due to pending task in relation to less staffing

Q10.1.4r: Multi-tasking due to pending task * Q10.4.2r: Less staffing Crosstabulation

			Q10.4.2r: Less staffing		
			Disagree	Agree	Total
Q10.1.4r: Multi-tasking due to pending task	Disagree	Count	6	5	11
		Expected Count	3.2	7.8	11.0
		Column %	40.0%	13.9%	21.6%
		Standardized Residual	1.5	-1.0	
	Agree	Count	9	31	40
		Expected Count	11.8	28.2	40.0
		Column %	60.0%	86.1%	78.4%
		Standardized Residual	-.8	.5	
Total		Count	15	36	51
		Expected Count	15.0	36.0	51.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	4.267[a]	1	.039	.061	.049	
Continuity Correction[b]	2.863	1	.091			
Likelihood Ratio	3.980	1	.046	.061	.049	
Fisher's Exact Test				.061	.049	
Linear-by-Linear Association	4.184[c]	1	.041	.061	.049	.040
N of Valid Cases	51					

a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 3.24.
b. Computed only for a 2x2 table
c. The standardized statistic is 2.045.

Six participants disagreed to the statement in Q10.1.4 and also disagreed to the statement in 10.4.2. However, 31 participants agreed that multi-tasking due to pending task is due to less staffing.

Here, the Fisher's exact test resulted in a p-value of 0.061 slightly higher than the significance value (0.061 > 0.05). This means that there is no significant association between the two variables in **Table 4.38**.

Table 4.39 Multi-tasking due to pending task in relation to work hours

Q10.1.4r: Multi-tasking due to pending task * Q10.4.3r: Work hours Crosstabulation

			Q10.4.3r: Work hours		
			Disagree	Agree	Total
Q10.1.4r: Multi-tasking due to pending task	Disagree	Count	8	3	11
		Expected Count	4.1	6.9	11.0
		Column %	42.1%	9.4%	21.6%
		Standardized Residual	1.9	-1.5	
	Agree	Count	11	29	40
		Expected Count	14.9	25.1	40.0
		Column %	57.9%	90.6%	78.4%
		Standardized Residual	-1.0	.8	
Total		Count	19	32	51
		Expected Count	19.0	32.0	51.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	7.550[a]	1	.006	.012	.009	
Continuity Correction[b]	5.739	1	.017			
Likelihood Ratio	7.406	1	.007	.012	.009	
Fisher's Exact Test				.012	.009	
Linear-by-Linear Association	7.402[c]	1	.007	.012	.009	.008
N of Valid Cases	51					

a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 4.10.
b. Computed only for a 2x2 table
c. The standardized statistic is 2.721.

Eight participants in **Table 4.39** disagreed that multi-tasking due to pending task was related to work hours and 29 participants agreed to both statements.

There is a significant association between the two statements in Q10.1.4 and Q10.4.3 as the Fisher's exact test resulted in a p-value of 0.012.

Table 4.40 Multi-tasking due to pending task in relation to organisational climate

Q10.1.4r: Multi-tasking due to pending task * Q10.4.4r: Organisational climate Crosstabulation

			Q10.4.4r: Organisational climate		
			Disagree	Agree	Total
Q10.1.4r: Multi-tasking due to pending task	Disagree	Count	6	5	11
		Expected Count	3.2	7.8	11.0
		Column %	40.0%	13.9%	21.6%
		Standardized Residual	1.5	-1.0	
	Agree	Count	9	31	40
		Expected Count	11.8	28.2	40.0
		Column %	60.0%	86.1%	78.4%
		Standardized Residual	-.8	.5	
Total		Count	15	36	51
		Expected Count	15.0	36.0	51.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	4.267[a]	1	.039	.061	.049	
Continuity Correction[b]	2.863	1	.091			
Likelihood Ratio	3.980	1	.046	.061	.049	
Fisher's Exact Test				.061	.049	
Linear-by-Linear Association	4.184[c]	1	.041	.061	.049	.040
N of Valid Cases	51					

a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 3.24.
b. Computed only for a 2x2 table
c. The standardized statistic is 2.045.

In **Table 4.40**, 6 participants disagreed to the statement in Q10.1.4 and also disagreed with a statement in Q10.4.4. There are 31 participants who agreed to both statement in Q10.1.4 and Q10.4.4.

The test resulted in a p-value of 0.061 slightly higher than the significance value of 0.50. This result proved that there is no significant association between the statements in Q10.1.4 and Q10.4.4.

Table 4.41 Multi-tasking due to pending task in relation to education and information

Q10.1.4r: Multi-tasking due to pending task * Q10.4.5r: Education and information Crosstabulation

			Q10.4.5r: Education and information		
			Disagree	Agree	Total
Q10.1.4r: Multi-tasking due to pending task	Disagree	Count	8	3	11
		Expected Count	3.0	8.0	11.0
		Column %	57.1%	8.1%	21.6%
		Standardized Residual	2.9	-1.8	
	Agree	Count	6	34	40
		Expected Count	11.0	29.0	40.0
		Column %	42.9%	91.9%	78.4%
		Standardized Residual	-1.5	.9	
Total		Count	14	37	51
		Expected Count	14.0	37.0	51.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	14.436[a]	1	.000	.001	.001	
Continuity Correction[b]	11.683	1	.001			
Likelihood Ratio	13.237	1	.000	.001	.001	
Fisher's Exact Test				.001	.001	
Linear-by-Linear Association	14.153[c]	1	.000	.001	.001	.000
N of Valid Cases	51					

a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 3.02.
b. Computed only for a 2x2 table
c. The standardized statistic is 3.762.

Eight participants disagreed with the statement in Q10.1.4 and also disagreed with the statement given in Q10.4.4. However, the majority (n=34) of participants agreed that multi-tasking due to pending task was related to education and information during bedside clinical handover.

In **Table 4.41**, the Fisher's exact test resulted in a p-value of 0.001 and there is a significant association between the two statements given in Q10.1.4 and Q10.4.5.

Table 4.42 Multi-tasking due to pending task in relation to stress and fatigue

Q10.1.4r: Multi-tasking due to pending task * Q10.5.3r: Stress and fatigue Crosstabulation

			Q10.5.3r: Stress and fatigue		
			Disagree	Agree	Total
Q10.1.4r: Multi-tasking due to pending task	Disagree	Count	4	7	11
		Expected Count	2.4	8.6	11.0
		Column %	36.4%	17.5%	21.6%
		Standardized Residual	1.1	-.6	
	Agree	Count	7	33	40
		Expected Count	8.6	31.4	40.0
		Column %	63.6%	82.5%	78.4%
		Standardized Residual	-.6	.3	
Total		Count	11	40	51
		Expected Count	11.0	40.0	51.0
		Column %	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	1.815[a]	1	.178	.222	.173	
Continuity Correction[b]	.871	1	.351			
Likelihood Ratio	1.663	1	.197	.222	.173	
Fisher's Exact Test				.222	.173	
Linear-by-Linear Association	1.779[c]	1	.182	.222	.173	.129
N of Valid Cases	51					

a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 2.37.
b. Computed only for a 2x2 table
c. The standardized statistic is 1.334.

33 participants agreed that multi-tasking due to pending task affects effective handover and also agreed that it relates to their stress and fatigue. Only 4 participants disagreed with both statements given in Q10.1.4 and Q10.5.3.

The Fisher's exact test resulted in a p-value of 0.222 concluding that there is no significant association between the two statements in Q10.1.4 and Q10.5.3.

4.3.5 The participants' opinion of factors that can improve communication during bedside clinical handover

Although there were 51 persons who responded to the questionnaire, some of them gave more than one answer in the following open-ended questions. Thus, there were more than 51 responses or answers.

Table 4.43 Participants' opinion on what would improve bedside clinical handover when handover is guided by a standardised tool

$MRQ12*Q6.4r Crosstabulation

			Q6.4r: Is guided by a standardised tool		
			Disagree	Agree	Total
$MRQ12[a]	Clinical competence	Count	8	13	21
		% within Q6.4r	40.0%	27.1%	
	Patient and staff involvement	Count	2	9	11
		% within Q6.4r	10.0%	18.8%	
	Language	Count	2	3	5
		% within Q6.4r	10.0%	6.3%	
	Time management	Count	4	7	11
		% within Q6.4r	20.0%	14.6%	
	Privacy and confidentiality	Count	1	5	6
		% within Q6.4r	5.0%	10.4%	
	Documentation	Count	1	3	4
		% within Q6.4r	5.0%	6.3%	
	Other	Count	2	8	10
		% within Q6.4r	10.0%	16.7%	
Total		Count	20	48	68

Percentages and totals are based on responses.
a. Group

Since we have more responses than participants, this cross-table (**Table 4.43**) does not meet all the assumptions of the chi-square test or Fisher's exact test. The best way to report these results is to list the highest percentages. For instance, of the 20 participants who "disagreed" with statement 6.4, 40% indicated that "clinical competence" would improve communication during bedside clinical handover. A further 20% indicated that time management would also improve communication during bed-side clinical handover.

Of the 48 participants who "agreed" with statement 6.4, 27% indicated that "clinical competence" would improve communication during bedside clinical handover. A further 18.8% indicated that patient and staff involvement would also improve communication during bedside clinical handover.

Table 4.44 Participants' opinion on whether bedside clinical handover would be improved when patient safety issues are addressed

$MRQ12*Q6.5r Crosstabulation

			Q6.5r: Addresses patient safety issues e.g. fall risk, pressure ulcers etc.		
			Disagree	Agree	Total
$MRQ12[a]	Clinical competence	Count	2	19	21
		% within Q6.5r	28.6%	31.1%	
	Patient and staff involvement	Count	0	11	11
		% within Q6.5r	0.0%	18.0%	
	Language	Count	1	4	5
		% within Q6.5r	14.3%	6.6%	
	Time management	Count	2	9	11
		% within Q6.5r	28.6%	14.8%	
	Privacy and confidentiality	Count	0	6	6
		% within Q6.5r	0.0%	9.8%	
	Documentation	Count	0	4	4
		% within Q6.5r	0.0%	6.6%	
	Other	Count	2	8	10
		% within Q6.5r	28.6%	13.1%	
Total		Count	7	61	68

Percentages and totals are based on responses.
a. Group

Table 4.44 present the figures of whether communication during bedside clinical handover would be improved when patient safety issues are addressed, such as fall risk, pressure ulcers etc. Here, 7 participants who "disagreed" with statement in Q6.5, 29% indicated that "clinical competence", "time management" and other factors would improve communication during bedside clinical handover.

Of the 61 participants who "agreed" with statement in Q6.5, 31% indicated that "clinical competence" would improve communication during bedside clinical handover and 18% further agreed that "patient and staff involvement" would improve communication during bedside clinical handover.

Table 4.45 Participants' opinion on whether bedside clinical handover would be improved when information received is up to date

$MRQ12*Q9.3r Crosstabulation

			Q9.3r: The information I receive is up to date		
			Disagree	Agree	Total
$MRQ12[a]	Clinical competence	Count	5	16	21
		% within Q9.3r	41.7%	28.6%	
	Patient and staff involvement	Count	1	10	11
		% within Q9.3r	8.3%	17.9%	
	Language	Count	0	5	5
		% within Q9.3r	0.0%	8.9%	
	Time management	Count	2	9	11
		% within Q9.3r	16.7%	16.1%	
	Privacy and confidentiality	Count	0	6	6
		% within Q9.3r	0.0%	10.7%	
	Documentation	Count	2	2	4
		% within Q9.3r	16.7%	3.6%	
	Other	Count	2	8	10
		% within Q9.3r	16.7%	14.3%	
Total		Count	12	56	68

Percentages and totals are based on responses.
a. Group

Of the 12 participants who "disagreed" with the statement in Q9.3, an overwhelming 41.7% indicated that "clinical competence" would improve communication during bedside clinical handover. In addition, a further 16.7% indicated that "time management", "documentation" and other factors would also improve communication during bedside clinical handover.

Of the 56 participants who "agreed" with the statement in Q9.3, 29% indicated that "clinical competence" would improve communication during bedside clinical handover. 18% of the responses indicated "patient and staff involvement" whereas 16% believed that "time management" would improve communication during bedside clinical handover.

Table 4.46 Participants' opinion on whether bedside clinical handover would be improved by obtaining handover information on the patient records

$MRQ12*Q9.9r Crosstabulation

			Q9.9r: I could obtain handover information on the patient records		
			Disagree	Agree	Total
$MRQ12[a]	Clinical competence	Count	9	12	21
		% within Q9.9r	25.7%	36.4%	
	Patient and staff involvement	Count	4	7	11
		% within Q9.9r	11.4%	21.2%	
	Language	Count	4	1	5
		% within Q9.9r	11.4%	3.0%	
	Time management	Count	6	5	11
		% within Q9.9r	17.1%	15.2%	
	Privacy and confidentiality	Count	3	3	6
		% within Q9.9r	8.6%	9.1%	
	Documentation	Count	3	1	4
		% within Q9.9r	8.6%	3.0%	
	Other	Count	6	4	10
		% within Q9.9r	17.1%	12.1%	
Total		Count	35	33	68

Percentages and totals are based on responses.
a. Group

In Table 4.46, 35 responses which "disagreed" with the statement in Q9.9, 26% indicated that "clinical competence" would improve communication during bedside clinical handover. A further 17% both indicated "time management" and "other factors" as elements that would improve communication during bedside clinical handover.

Again, of the 33 responses, "agreed" that clinical competence (36%) and patient and staff involvement (21%) would improve communication during bedside clinical handover if they could obtain information on the patient records.

4.3.6 The participants' opinion of things preventing nurses from communicating effectively

The following cross tabulations outlines nurses' perception on factors preventing them from communicating effectively and only 45 registered nurses responded to the question.

Table 4.47 Factors preventing the nurses from communicating effectively in relation to language

Q13.1: What are the things that prevent nurses from communicating effectively? * Q4r: What is your language? Crosstabulation

			Q4r: What is your language?		
			African language	Afrikaans or English	Total
Q13.1: What are the things that prevent nurses from communicating effectively?	Timelines	Count	9	0	9
		Expected Count	7.6	1.4	9.0
		% within Q4r: What is your language?	23.7%	0.0%	20.0%
		Standardized Residual	.5	-1.2	
	Interruptions	Count	2	0	2
		Expected Count	1.7	.3	2.0
		% within Q4r: What is your language?	5.3%	0.0%	4.4%
		Standardized Residual	.2	-.6	
	Lack of confidence and experience	Count	9	3	12
		Expected Count	10.1	1.9	12.0
		% within Q4r: What is your language?	23.7%	42.9%	26.7%
		Standardized Residual	-.4	.8	
	Lack of teamwork and trust	Count	3	2	5
		Expected Count	4.2	.8	5.0
		% within Q4r: What is your language?	7.9%	28.6%	11.1%
		Standardized Residual	-.6	1.4	
	Language barrier	Count	6	2	8
		Expected Count	6.8	1.2	8.0
		% within Q4r: What is your language?	15.8%	28.6%	17.8%
		Standardized Residual	-.3	.7	
	Increased workload	Count	6	0	6
		Expected Count	5.1	.9	6.0
		% within Q4r: What is your language?	15.8%	0.0%	13.3%
		Standardized Residual	.4	-1.0	
	Lack of senior involvement	Count	1	0	1
		Expected Count	.8	.2	1.0
		% within Q4r: What is your language?	2.6%	0.0%	2.2%
		Standardized Residual	.2	-.4	
	Lack of confidentiality	Count	2	0	2
		Expected Count	1.7	.3	2.0
		% within Q4r: What is your language?	5.3%	0.0%	4.4%
		Standardized Residual	.2	-.6	
Total		Count	38	7	45
		Expected Count	38.0	7.0	45.0
		% within Q4r: What is your language?	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	7.317[a]	7	.397	.398		
Likelihood Ratio	9.677	7	.208	.268		
Fisher's Exact Test	6.806			.413		
Linear-by-Linear Association	.006[b]	1	.938	1.000	.496	.075
N of Valid Cases	45					

a. 12 cells (75.0%) have expected count less than 5. The minimum expected count is .16.
b. The standardized statistic is .078.

This is a cross-table that meets the assumptions for the fisher's exact test. Out of the total number of 38 participants who used African language, 24% indicated "timeliness" and "lack of confidence and experience" as barriers to effective communication. A further 16% indicated that "increased workload" prevented nurses from communicating effectively.

Of the seven participants who either used English or Afrikaans as the first language, 43% indicated "lack of confidence and experience" prevented nurses from communicating effectively and 29% indicated "lack of teamwork and trust" and "language barrier" to be issues preventing nurses from communicating effectively

The results of the p-value (p=0.413) indicated that there is no significant association between language and factors preventing nurses from communicating effectively.

Table 4.48 Factors preventing the nurses from communicating effectively in relation to age

$MRQ13*Q2r Crosstabulation

			Q2r: Age 26 - 30 years	31 - 35 years	36 - 40 years	Total
$MRQ13[a]	Timelines	Count	2	4	7	13
		% within Q2r	12.5%	21.1%	20.6%	
	Interruptions	Count	0	2	5	7
		% within Q2r	0.0%	10.5%	14.7%	
	Lack of confidence and experience	Count	4	6	10	20
		% within Q2r	25.0%	31.6%	29.4%	
	Lack of teamwork and trust	Count	4	4	3	11
		% within Q2r	25.0%	21.1%	8.8%	
	Language barrier	Count	1	1	4	6
		% within Q2r	6.3%	5.3%	11.8%	
	Increased workload	Count	4	1	1	6
		% within Q2r	25.0%	5.3%	2.9%	
	Stress and fatigue	Count	0	1	1	2
		% within Q2r	0.0%	5.3%	2.9%	
	Lack of senior involvement	Count	0	0	1	1
		% within Q2r	0.0%	0.0%	2.9%	
	Lack of confidentiality	Count	1	0	2	3
		% within Q2r	6.3%	0.0%	5.9%	
Total		Count	16	19	34	69

Percentages and totals are based on responses.
a. Group

Of the 16 responses from the age 26 – 30 years, 25% indicated that “lack of confidence”, “language barrier” and “increased workload” prevented the nurses from communicating effectively. The responses from participants between the ages 31 – 35 years, 21% indicated both “timeliness” and “tack of teamwork and trust” to prevent nurses from communicating effective and 32% of the responses from the same age category pointed out “lack of confidence and experience” as a reason preventing effective communication. Responses from participants of 36 – 40 years of age indicated “timeliness” (21%) and “lack of confidence and experience” (29%) as factors preventing nurses from communicating effectively.

Table 4.49 Factors preventing the nurses from communicating effectively in relation to language

$MRQ13*Q4r Crosstabulation

			Q4r: What is your language?		
			African language	Afrikaans or English	Total
$MRQ13[a]	Timelines	Count	15	0	15
		% within Q4r	22.1%	0.0%	
	Interruptions	Count	5	2	7
		% within Q4r	7.4%	13.3%	
	Lack of confidence and experience	Count	18	5	23
		% within Q4r	26.5%	33.3%	
	Lack of teamwork and trust	Count	8	6	14
		% within Q4r	11.8%	40.0%	
	Language barrier	Count	8	2	10
		% within Q4r	11.8%	13.3%	
	Increased workload	Count	9	0	9
		% within Q4r	13.2%	0.0%	
	Stress and fatigue	Count	1	0	1
		% within Q4r	1.5%	0.0%	
	Lack of senior involvement	Count	1	0	1
		% within Q4r	1.5%	0.0%	
	Lack of confidentiality	Count	3	0	3
		% within Q4r	4.4%	0.0%	
Total		Count	68	15	83

Percentages and totals are based on responses.
a. Group

Of the 68 responses who speak African language, 26.5% indicated that “lack of confidence and experience” affected the quality of effective bedside clinical handover and a further 22.1% mentioned “timeliness” as factors preventing nurses from communicating effectively.

Out of 15 responses who speaks English or Afrikaans, 40% indicated that “lack of teamwork and trust”, as well as “lack of confidence and experience” (33.3%) as factors preventing nurses from communicating effectively during bedside clinical handover.

Table 4.50 Factors preventing the nurses from communicating effectively in relation to involvement of the supervisor

$MRQ13*Q7.4r Crosstabulation

			Q7.4r: Supervisor		
			Disagree	Agree	Total
$MRQ13[a]	Timelines	Count	6	10	16
		% within Q7.4r	14.6%	21.7%	
	Interruptions	Count	2	5	7
		% within Q7.4r	4.9%	10.9%	
	Lack of confidence and experience	Count	9	15	24
		% within Q7.4r	22.0%	32.6%	
	Lack of teamwork and trust	Count	10	5	15
		% within Q7.4r	24.4%	10.9%	
	Language barrier	Count	6	4	10
		% within Q7.4r	14.6%	8.7%	
	Increased workload	Count	4	5	9
		% within Q7.4r	9.8%	10.9%	
	Stress and fatigue	Count	2	0	2
		% within Q7.4r	4.9%	0.0%	
	Lack of senior involvement	Count	1	0	1
		% within Q7.4r	2.4%	0.0%	
	Lack of confidentiality	Count	1	2	3
		% within Q7.4r	2.4%	4.3%	
Total		Count	41	46	87

Percentages and totals are based on responses.
a. Group

Of the 41 responses from participants who disagreed with the statement in Q7.4, 22% indicated that “lack of confidence and experience” prevent nurses from communicating effectively during bedside clinical handover. A further 24.4% indicated that “lack of teamwork and trust” prevent nurses from communicating effectively.

Of the 46 responses from participants who agreed with the statement in Q7.4, 28% indicated that “timeliness” and 33% indicated that “lack of confidence and experience” prevented nurses from communicating effectively.

Table 4.51 Factors preventing the nurses from communicating effectively in relation to handover time

$MRQ13*Q9.7r Crosstabulation

			Q9.7r: I find handover takes too much time		
			Disagree	Agree	Total
$MRQ13[a]	Timelines	Count	10	6	16
		% within Q9.7r	16.4%	23.1%	
	Interruptions	Count	5	2	7
		% within Q9.7r	8.2%	7.7%	
	Lack of confidence and experience	Count	14	10	24
		% within Q9.7r	23.0%	38.5%	
	Lack of teamwork and trust	Count	12	3	15
		% within Q9.7r	19.7%	11.5%	
	Language barrier	Count	7	3	10
		% within Q9.7r	11.5%	11.5%	
	Increased workload	Count	7	2	9
		% within Q9.7r	11.5%	7.7%	
	Stress and fatigue	Count	2	0	2
		% within Q9.7r	3.3%	0.0%	
	Lack of senior involvement	Count	1	0	1
		% within Q9.7r	1.6%	0.0%	
	Lack of confidentiality	Count	3	0	3
		% within Q9.7r	4.9%	0.0%	
Total		Count	61	26	87

Percentages and totals are based on responses.
a. Group

Of the 61 responses from participants in **Table 4.51,** 23% disagreed with the statement in Q9.7 and indicated that “lack of confidence and experience” prevented nurses from communicating effectively. In addition, 19.7% indicated that “lack of teamwork and trust” prevented nurses from communicating effectively.

Of the 26 responses from participants who agreed with the statement in Q9.7, “timeliness” (23.1%) and “lack of confidence and experience” (38.5%) were cited as factors preventing nurses from communicating effectively during bedside clinical handover.

Table 4.52 Factors preventing the nurses from communicating effectively in relation to information given that is not relevant to patient care

$MRQ13*Q9.8r Crosstabulation

			Q9.8r: I am often given information that is not relevant to patient care		
			Disagree	Agree	Total
$MRQ13[a]	Timelines	Count	10	6	16
		% within Q9.8r	17.5%	20.0%	
	Interruptions	Count	6	1	7
		% within Q9.8r	10.5%	3.3%	
	Lack of confidence and experience	Count	14	10	24
		% within Q9.8r	24.6%	33.3%	
	Lack of teamwork and trust	Count	9	6	15
		% within Q9.8r	15.8%	20.0%	
	Language barrier	Count	7	3	10
		% within Q9.8r	12.3%	10.0%	
	Increased workload	Count	7	2	9
		% within Q9.8r	12.3%	6.7%	
	Stress and fatigue	Count	1	1	2
		% within Q9.8r	1.8%	3.3%	
	Lack of senior involvement	Count	0	1	1
		% within Q9.8r	0.0%	3.3%	
	Lack of confidentiality	Count	3	0	3
		% within Q9.8r	5.3%	0.0%	
Total		Count	57	30	87

Percentages and totals are based on responses.
a. Group

Of the 57 responses from participants who disagreed that they are often given information that is not relevant to patient care during handover, 17.5% indicated that “timeliness” prevented nurses from communicating effectively. Furthermore, 24.6% alluded that “lack of confidence and experience” prevented them from communicating effectively during bedside clinical handover.

Of the 30 responses from participants who agreed with the statement in Q9.8, “timeliness” (20%), “lack of confidence and experience” (33.3%) and “lack of teamwork and trust” were seen as factors preventing nurses from communicating effectively.

Table 4.53 Factors preventing the nurses from communicating effectively in relation to interruption by patients or family members

$MRQ13*Q9.10r Crosstabulation

			Q9.10r: I am interrupted by patients or family members		
			Disagree	Agree	Total
$MRQ13[a]	Timelines	Count	9	7	16
		% within Q9.10r	20.0%	16.7%	
	Interruptions	Count	4	3	7
		% within Q9.10r	8.9%	7.1%	
	Lack of confidence and experience	Count	14	10	24
		% within Q9.10r	31.1%	23.8%	
	Lack of teamwork and trust	Count	8	7	15
		% within Q9.10r	17.8%	16.7%	
	Language barrier	Count	3	7	10
		% within Q9.10r	6.7%	16.7%	
	Increased workload	Count	3	6	9
		% within Q9.10r	6.7%	14.3%	
	Stress and fatigue	Count	1	1	2
		% within Q9.10r	2.2%	2.4%	
	Lack of senior involvement	Count	1	0	1
		% within Q9.10r	2.2%	0.0%	
	Lack of confidentiality	Count	2	1	3
		% within Q9.10r	4.4%	2.4%	
Total		Count	45	42	87

Percentages and totals are based on responses.
a. Group

Of the 45 responses from participants who disagreed that they are interrupted by patients or family members during bedside clinical handover, 20% indicated that “timeliness” prevented nurses from communicating effectively. A further 31.1% also indicated that ineffective communication was due to “lack of confidence and experience”.

On the other hand, 42 of the responses who agreed with the statement in Q9.10, 23.8% indicated that “lack of confidence and experience” prevented the nurses from communicating effectively. Only 17% indicated that “lack of teamwork and trust” and “language barrier” prevented nurses from communicating effectively during bedside clinical handover.

Table 4.54 Task Factor: Patient care in relation to factors preventing the nurses from communicating effectively during bedside clinical handover

$MRQ13*Q10.1.1r Crosstabulation

			Q10.1.1r: The following factors affects effective clinical handover: Task factors: Patient care		
			Disagree	Agree	Total
$MRQ13[a]	Timelines	Count	4	12	16
		% within Q10.1.1r	26.7%	16.7%	
	Interruptions	Count	1	6	7
		% within Q10.1.1r	6.7%	8.3%	
	Lack of confidence and experience	Count	5	19	24
		% within Q10.1.1r	33.3%	26.4%	
	Lack of teamwork and trust	Count	1	14	15
		% within Q10.1.1r	6.7%	19.4%	
	Language barrier	Count	0	10	10
		% within Q10.1.1r	0.0%	13.9%	
	Increased workload	Count	1	8	9
		% within Q10.1.1r	6.7%	11.1%	
	Stress and fatigue	Count	1	1	2
		% within Q10.1.1r	6.7%	1.4%	
	Lack of senior involvement	Count	0	1	1
		% within Q10.1.1r	0.0%	1.4%	
	Lack of confidentiality	Count	2	1	3
		% within Q10.1.1r	13.3%	1.4%	
Total		Count	15	72	87

Percentages and totals are based on responses.

a. Group

Of the 15 responses from participants who disagreed with the statement in Q10.1.1, 26.7% indicated that “timeliness” prevented the nurses from communicating effectively. A further 33.3% indicated that “lack of confidence and experience” prevented nurses from communicating effectively during bedside clinical handover.

However, of the 72 responses from participants who agreed that patient care as a task factor affected effective clinical handover, 26.4% indicated that it was due to “lack of confidence and experience” whilst 19.4% indicated that ineffective communication happened due to “lack of teamwork and trust”.

Table 4.55 Task Factor: Non nursing task in relation to factors preventing the nurses from communicating effectively during bedside clinical handover

$MRQ13*Q10.1.2r Crosstabulation

			Q10.1.2r: Non nursing task		
			Disagree	Agree	Total
$MRQ13[a]	Timelines	Count	6	10	16
		% within Q10.1.2r	26.1%	15.6%	
	Interruptions	Count	2	5	7
		% within Q10.1.2r	8.7%	7.8%	
	Lack of confidence and experience	Count	6	18	24
		% within Q10.1.2r	26.1%	28.1%	
	Lack of teamwork and trust	Count	4	11	15
		% within Q10.1.2r	17.4%	17.2%	
	Language barrier	Count	1	9	10
		% within Q10.1.2r	4.3%	14.1%	
	Increased workload	Count	1	8	9
		% within Q10.1.2r	4.3%	12.5%	
	Stress and fatigue	Count	0	2	2
		% within Q10.1.2r	0.0%	3.1%	
	Lack of senior involvement	Count	0	1	1
		% within Q10.1.2r	0.0%	1.6%	
	Lack of confidentiality	Count	3	0	3
		% within Q10.1.2r	13.0%	0.0%	
Total		Count	23	64	87

Percentages and totals are based on responses.
a. Group

26.1% out of the total responses from 23 participants, disagreed with the statement in Q10.1.2 and indicated that both “timeliness” and “lack of confidence and experience” prevented nurses from communicating effectively.

However, of the 64 responses from participants who agreed that non nursing task affected the effective clinical handover, 28.1% indicated that “lack of confidence and experience” and “lack of teamwork and trust” (17.2%) prevented nurses from communicating effectively.

Table 4.56 Task Factor: Documentation in relation to factors preventing the nurses from communicating effectively during bedside clinical handover

$MRQ13*Q10.1.3r Crosstabulation

			Q10.1.3r: Documentation		
			Disagree	Agree	Total
$MRQ13[a]	Timelines	Count	6	10	16
		% within Q10.1.3r	21.4%	16.9%	
	Interruptions	Count	1	6	7
		% within Q10.1.3r	3.6%	10.2%	
	Lack of confidence and experience	Count	10	14	24
		% within Q10.1.3r	35.7%	23.7%	
	Lack of teamwork and trust	Count	4	11	15
		% within Q10.1.3r	14.3%	18.6%	
	Language barrier	Count	3	7	10
		% within Q10.1.3r	10.7%	11.9%	
	Increased workload	Count	2	7	9
		% within Q10.1.3r	7.1%	11.9%	
	Stress and fatigue	Count	1	1	2
		% within Q10.1.3r	3.6%	1.7%	
	Lack of senior involvement	Count	0	1	1
		% within Q10.1.3r	0.0%	1.7%	
	Lack of confidentiality	Count	1	2	3
		% within Q10.1.3r	3.6%	3.4%	
Total		Count	28	59	87

Percentages and totals are based on responses.
a. Group

Of the 28 responses in **Table 4.56** who disagreed that documentation affected effective clinical handover, 21.4% indicated that “timeliness” and 35.7% indicated that “lack of confidence and experience” prevented the nurses from communicating effectively during bedside clinical handover.

On the other hand, 59 of the responses who agreed that documentation affected effective clinical handover, 23.7% indicated that it was due to “lack of confidence and experience” whereas 18.6% indicated that “lack of teamwork and trust” prevented the nurses from communicating effectively.

Table 4.57 Multi-tasking due to pending task in relation to factors preventing the nurses from communicating effectively during bedside clinical handover

$MRQ13*Q10.1.4r Crosstabulation

			Q10.1.4r: Multi-tasking due to pending task		
			Disagree	Agree	Total
$MRQ13[a]	Timelines	Count	5	11	16
		% within Q10.1.4r	27.8%	15.9%	
	Interruptions	Count	0	7	7
		% within Q10.1.4r	0.0%	10.1%	
	Lack of confidence and experience	Count	7	17	24
		% within Q10.1.4r	38.9%	24.6%	
	Lack of teamwork and trust	Count	3	12	15
		% within Q10.1.4r	16.7%	17.4%	
	Language barrier	Count	1	9	10
		% within Q10.1.4r	5.6%	13.0%	
	Increased workload	Count	0	9	9
		% within Q10.1.4r	0.0%	13.0%	
	Stress and fatigue	Count	1	1	2
		% within Q10.1.4r	5.6%	1.4%	
	Lack of senior involvement	Count	0	1	1
		% within Q10.1.4r	0.0%	1.4%	
	Lack of confidentiality	Count	1	2	3
		% within Q10.1.4r	5.6%	2.9%	
Total		Count	18	69	87

Percentages and totals are based on responses.
a. Group

Of the total of 18 responses from participants who disagreed that effective clinical handover was the results multi-tasking due to pending task, 27.8% indicated that “timeliness” and 38.9% indicated that “lack of confidence and experience” prevented nurses from communicating effectively. However, of the 69 responses from participants who agreed with the statement in Q10.1.4, only 15.9% indicated that “timeliness” and 24.6% indicated that “lack of confidence and experience” prevented nurses from communicating effectively during bedside clinical handover.

Table 4.58 Factors preventing the nurses from communicating effectively during bedside clinical handover in relation to use of cell phones during handover

$MRQ13*Q10.2.1r Crosstabulation

			Q10.2.1r: Technology and tools: Use of cell phones during handover		
			Disagree	Agree	Total
$MRQ13[a]	Timelines	Count	6	10	16
		% within Q10.2.1r	12.0%	27.0%	
	Interruptions	Count	5	2	7
		% within Q10.2.1r	10.0%	5.4%	
	Lack of confidence and experience	Count	14	10	24
		% within Q10.2.1r	28.0%	27.0%	
	Lack of teamwork and trust	Count	11	4	15
		% within Q10.2.1r	22.0%	10.8%	
	Language barrier	Count	7	3	10
		% within Q10.2.1r	14.0%	8.1%	
	Increased workload	Count	3	6	9
		% within Q10.2.1r	6.0%	16.2%	
	Stress and fatigue	Count	1	1	2
		% within Q10.2.1r	2.0%	2.7%	
	Lack of senior involvement	Count	1	0	1
		% within Q10.2.1r	2.0%	0.0%	
	Lack of confidentiality	Count	2	1	3
		% within Q10.2.1r	4.0%	2.7%	
Total		Count	50	37	87

Percentages and totals are based on responses.
a. Group

Out of a total of 50 responses from participants who disagreed that use of cell phones during handover affects effective clinical handover, 28% indicated “lack of confidence and experience” and 22% indicated “lack of teamwork and trust” to be major factors preventing the nurses from communicating effectively.

Furthermore, of the 37 responses from participants who agreed that use of cell phones during handover affects clinical handover, 27% indicated both “timeliness” and “lack of confidence and experience” as factors preventing nurses from communicating effectively.

Table 4.59 Factors preventing the nurses from communicating effectively during bedside clinical handover in relation to training

$MRQ13*Q10.2.2r Crosstabulation

			Q10.2.2r: Training		
			Disagree	Agree	Total
$MRQ13[a]	Timelines	Count	5	11	16
		% within Q10.2.2r	15.6%	20.0%	
	Interruptions	Count	2	5	7
		% within Q10.2.2r	6.3%	9.1%	
	Lack of confidence and experience	Count	10	14	24
		% within Q10.2.2r	31.3%	25.5%	
	Lack of teamwork and trust	Count	7	8	15
		% within Q10.2.2r	21.9%	14.5%	
	Language barrier	Count	6	4	10
		% within Q10.2.2r	18.8%	7.3%	
	Increased workload	Count	1	8	9
		% within Q10.2.2r	3.1%	14.5%	
	Stress and fatigue	Count	1	1	2
		% within Q10.2.2r	3.1%	1.8%	
	Lack of senior involvement	Count	0	1	1
		% within Q10.2.2r	0.0%	1.8%	
	Lack of confidentiality	Count	0	3	3
		% within Q10.2.2r	0.0%	5.5%	
Total		Count	32	55	87

Percentages and totals are based on responses.
a. Group

Again, of the 32 responses from participants who disagreed that training affects effective clinical handover, 31.3% indicated that “lack of confidence and experience” prevents nurses from communicating effectively. A further 21.9% indicated “lack of teamwork and trust” as a barrier to communicate effectively.

Of the 55 responses from participants who agreed that training affects effective clinical handover, 20% indicated that “timeliness” prevented nurses from communicating effectively whereas 25.5% pointed at “lack of confidence and experience”.

Table 4.60 Factors preventing the nurses from communicating effectively during bedside clinical handover in relation to patient handling aids

$MRQ13*Q10.2.3r Crosstabulation

			Q10.2.3r: Patient handling aids e.g. wheelchairs		
			Disagree	Agree	Total
$MRQ13[a]	Timelines	Count	5	11	16
		% within Q10.2.3r	13.2%	22.9%	
	Interruptions	Count	2	5	7
		% within Q10.2.3r	5.3%	10.4%	
	Lack of confidence and experience	Count	13	11	24
		% within Q10.2.3r	34.2%	22.9%	
	Lack of teamwork and trust	Count	9	6	15
		% within Q10.2.3r	23.7%	12.5%	
	Language barrier	Count	5	5	10
		% within Q10.2.3r	13.2%	10.4%	
	Increased workload	Count	1	7	8
		% within Q10.2.3r	2.6%	14.6%	
	Stress and fatigue	Count	2	0	2
		% within Q10.2.3r	5.3%	0.0%	
	Lack of senior involvement	Count	0	1	1
		% within Q10.2.3r	0.0%	2.1%	
	Lack of confidentiality	Count	1	2	3
		% within Q10.2.3r	2.6%	4.2%	
Total		Count	38	48	86

Percentages and totals are based on responses.
a. Group

In **Table 4.60**, of the 38 responses who disagreed that patient handling aids affected effective communication during bedside clinical handover, 34.2% pointed to “lack of confidence and experience” whilst 23.7% indicated “lack of teamwork and trust” as factors preventing nurses from communicating effectively.

Of the 48 responses from participants who agreed that patient handling aids affected effective communication during bedside clinical handover, 22.9% indicated that both “timeliness” and “lack of confidence and experience” as factors preventing nurses from communicating effectively.

Table 4.61 Factors preventing the nurses from communicating effectively during bedside clinical handover in relation to number of beds in the room

$MRQ13*Q10.3.1r Crosstabulation

			Q10.3.1r: Environmental factors: Number of beds in room		
			Disagree	Agree	Total
$MRQ13[a]	Timelines	Count	4	12	16
		% within Q10.3.1r	15.4%	19.7%	
	Interruptions	Count	1	6	7
		% within Q10.3.1r	3.8%	9.8%	
	Lack of confidence and experience	Count	7	17	24
		% within Q10.3.1r	26.9%	27.9%	
	Lack of teamwork and trust	Count	5	10	15
		% within Q10.3.1r	19.2%	16.4%	
	Language barrier	Count	4	6	10
		% within Q10.3.1r	15.4%	9.8%	
	Increased workload	Count	4	5	9
		% within Q10.3.1r	15.4%	8.2%	
	Stress and fatigue	Count	0	2	2
		% within Q10.3.1r	0.0%	3.3%	
	Lack of senior involvement	Count	0	1	1
		% within Q10.3.1r	0.0%	1.6%	
	Lack of confidentiality	Count	1	2	3
		% within Q10.3.1r	3.8%	3.3%	
Total		Count	26	61	87

Percentages and totals are based on responses.
a. Group

In **Table 4.61**, of the 26 responses who disagreed" that number of beds in patient rooms affected quality of handover, 26.9% indicated that "lack of confidence and experience" prevented nurses from communicating effectively during bedside clinical handover. Only 19.2% who disagreed with the statement in Q10.3.1 pointed to "lack of teamwork and trust".

Of the 61 responses from participants who agreed to the statement in Q10.3.1, 19.7% indicated that "timeliness" prevented the nurses from communicating effectively during bedside clinical handover and 27.9% indicated that "lack of confidence and experience" was the reason for ineffective communication during bedside clinical handover.

Table 4.62 Factors preventing the nurses from communicating effectively during bedside clinical handover in relation to physical obstruction to patients

$MRQ13*Q10.3.2r Crosstabulation

			Q10.3.2r: Physical obstruction to patients		
			Disagree	Agree	Total
$MRQ13[a]	Timelines	Count	6	10	16
		% within Q10.3.2r	15.4%	20.8%	
	Interruptions	Count	1	6	7
		% within Q10.3.2r	2.6%	12.5%	
	Lack of confidence and experience	Count	12	12	24
		% within Q10.3.2r	30.8%	25.0%	
	Lack of teamwork and trust	Count	8	7	15
		% within Q10.3.2r	20.5%	14.6%	
	Language barrier	Count	6	4	10
		% within Q10.3.2r	15.4%	8.3%	
	Increased workload	Count	4	5	9
		% within Q10.3.2r	10.3%	10.4%	
	Stress and fatigue	Count	1	1	2
		% within Q10.3.2r	2.6%	2.1%	
	Lack of senior involvement	Count	0	1	1
		% within Q10.3.2r	0.0%	2.1%	
	Lack of confidentiality	Count	1	2	3
		% within Q10.3.2r	2.6%	4.2%	
Total		Count	39	48	87

Percentages and totals are based on responses.
a. Group

In **Table 4.62**, of the 39 responses who disagreed to the statement in Q10.3.2, 30.8% indicated that “lack of confidence and experience” prevented nurses from communicating effectively during bedside clinical handover. A further 20.5% pointed to “lack of teamwork and trust” as a barrier to effective communication during bedside clinical handover.

Of the 48 responses who “agreed” that physical obstruction to patients during handover led to ineffective communication, 20.8% indicated that it was due to “timeliness” and a further 25% pointed to “lack of confidence and experience”.

Table 4.63 Factors preventing the nurses from communicating effectively during bedside clinical handover in relation to lighting and noise

$MRQ13*Q10.3.3r Crosstabulation

			Q10.3.3r: Lighting and noise		
			Disagree	Agree	Total
$MRQ13[a]	Timelines	Count	7	9	16
		% within Q10.3.3r	17.1%	19.6%	
	Interruptions	Count	2	5	7
		% within Q10.3.3r	4.9%	10.9%	
	Lack of confidence and experience	Count	11	13	24
		% within Q10.3.3r	26.8%	28.3%	
	Lack of teamwork and trust	Count	7	8	15
		% within Q10.3.3r	17.1%	17.4%	
	Language barrier	Count	6	4	10
		% within Q10.3.3r	14.6%	8.7%	
	Increased workload	Count	4	5	9
		% within Q10.3.3r	9.8%	10.9%	
	Stress and fatigue	Count	2	0	2
		% within Q10.3.3r	4.9%	0.0%	
	Lack of senior involvement	Count	0	1	1
		% within Q10.3.3r	0.0%	2.2%	
	Lack of confidentiality	Count	2	1	3
		% within Q10.3.3r	4.9%	2.2%	
Total		Count	41	46	87

Percentages and totals are based on responses.
a. Group

Out of 41 responses who “Disagreed” that lighting and noise contributed to ineffective communication during bedside clinical handover, the majority (26.8%) pointed to “Lack of confidence and experience” as a factor prevent nurses from communicating effectively. Both “Timeliness” and “Lack of teamwork and trust” were indicated by 17.1% of the participants who believed that it prevented nurses from communicating effectively during bedside clinical handover.

Similarly, of the 46 responses who “Agreed” to the statement in Q10.3.3, 28.3% indicated that “Lack of confidence and experience” whilst 19.6% indicated “Timeliness” and only 17.4% pointed to “Lack of teamwork and trust” as contributory factors preventing nurses from communicating effectively during bedside clinical handover.

Table 4.64 Factors preventing the nurses from communicating effectively during bedside clinical handover in relation to physical layout of the room

$MRQ13*Q10.3.4r Crosstabulation

			Q10.3.4r: Physical layout of the room		
			Disagree	Agree	Total
$MRQ13[a]	Timelines	Count	5	11	16
		% within Q10.3.4r	17.9%	18.6%	
	Interruptions	Count	3	4	7
		% within Q10.3.4r	10.7%	6.8%	
	Lack of confidence and experience	Count	8	16	24
		% within Q10.3.4r	28.6%	27.1%	
	Lack of teamwork and trust	Count	4	11	15
		% within Q10.3.4r	14.3%	18.6%	
	Language barrier	Count	2	8	10
		% within Q10.3.4r	7.1%	13.6%	
	Increased workload	Count	4	5	9
		% within Q10.3.4r	14.3%	8.5%	
	Stress and fatigue	Count	1	1	2
		% within Q10.3.4r	3.6%	1.7%	
	Lack of senior involvement	Count	0	1	1
		% within Q10.3.4r	0.0%	1.7%	
	Lack of confidentiality	Count	1	2	3
		% within Q10.3.4r	3.6%	3.4%	
Total		Count	28	59	87

Percentages and totals are based on responses.
a. Group

In **Table 4.64**, of the 28 responses who “Disagreed” that physical layout of the room affected effective clinical handover, 28.6% indicated that “Lack of confidence and experience” prevented nurses from communicating effectively during bedside clinical handover. 17.9% indicated that “Timeliness” was the contributing factor towards ineffective communication during bedside clinical handover.

Of the 59 responses who “Agreed” to the statement in Q10.3.4, 27.1% indicated “Lack of confidence and experience” whilst 18.6% indicated both “Timeliness” and “Lack of teamwork and trust” as factors preventing nurses from communicating effectively during bedside clinical handover.

Table 4.65 Factors preventing the nurses from communicating effectively during bedside clinical handover in relation to patient workload

$MRQ13*Q10.4.1r Crosstabulation

			Q10.4.1r: Organisational factors: Patient workload		
			Disagree	Agree	Total
$MRQ13[a]	Timelines	Count	4	12	16
		% within Q10.4.1r	17.4%	18.8%	
	Interruptions	Count	0	7	7
		% within Q10.4.1r	0.0%	10.9%	
	Lack of confidence and experience	Count	9	15	24
		% within Q10.4.1r	39.1%	23.4%	
	Lack of teamwork and trust	Count	3	12	15
		% within Q10.4.1r	13.0%	18.8%	
	Language barrier	Count	2	8	10
		% within Q10.4.1r	8.7%	12.5%	
	Increased workload	Count	3	6	9
		% within Q10.4.1r	13.0%	9.4%	
	Stress and fatigue	Count	0	2	2
		% within Q10.4.1r	0.0%	3.1%	
	Lack of senior involvement	Count	0	1	1
		% within Q10.4.1r	0.0%	1.6%	
	Lack of confidentiality	Count	2	1	3
		% within Q10.4.1r	8.7%	1.6%	
Total		Count	23	64	87

Percentages and totals are based on responses.
a. Group

Of the 23 responses who “Disagreed” that patient workload affected clinical handover, 39.1% indicated that “Lack of confidence and experience” prevented nurses from communicating effectively whilst only 17.4% linked the statement in 10.4.1 to “Timeliness”.

Furthermore, out of 64 responses who “Agreed” with the statement in Q10.4.1, 23.4% indicated that “Lack of confidence and experience” prevented nurses from communicating effectively during bedside clinical handover. A further 18.8% pointed to both “Timeliness” and “Lack of teamwork and trust”.

Table 4.66 Factors preventing the nurses from communicating effectively during bedside clinical handover in relation to staffing

$MRQ13*Q10.4.2r Crosstabulation

			Q10.4.2r: Less staffing		
			Disagree	Agree	Total
$MRQ13[a]	Timelines	Count	6	10	16
		% within Q10.4.2r	23.1%	16.4%	
	Interruptions	Count	2	5	7
		% within Q10.4.2r	7.7%	8.2%	
	Lack of confidence and experience	Count	9	15	24
		% within Q10.4.2r	34.6%	24.6%	
	Lack of teamwork and trust	Count	3	12	15
		% within Q10.4.2r	11.5%	19.7%	
	Language barrier	Count	3	7	10
		% within Q10.4.2r	11.5%	11.5%	
	Increased workload	Count	1	8	9
		% within Q10.4.2r	3.8%	13.1%	
	Stress and fatigue	Count	0	2	2
		% within Q10.4.2r	0.0%	3.3%	
	Lack of senior involvement	Count	1	0	1
		% within Q10.4.2r	3.8%	0.0%	
	Lack of confidentiality	Count	1	2	3
		% within Q10.4.2r	3.8%	3.3%	
Total		Count	26	61	87

Percentages and totals are based on responses.
a. Group

In this category, 26 responses “Disagreed” that less staffing attributed to ineffective bedside clinical handover. Out of this, 34.6% indicated that poor communication was related to “Lack of confidence and experience” and 23.1% indicated that “Timeliness” prevented nurses from communicating effectively during bedside clinical handover.

However, of the 61 responses who “Agreed” that less staffing affected clinical handover, 24.6% indicated that it was due to “Lack of confidence and experience” of nurses whilst 19.7% believed that “Lack of teamwork and trust” prevented the nurses from communicating effectively.

Table 4.67 Factors preventing the nurses from communicating effectively during bedside clinical handover in relation to working hours

$MRQ13*Q10.4.3r Crosstabulation

			Q10.4.3r: Work hours		
			Disagree	Agree	Total
$MRQ13[a]	Timelines	Count	7	9	16
		% within Q10.4.3r	21.9%	16.4%	
	Interruptions	Count	2	5	7
		% within Q10.4.3r	6.3%	9.1%	
	Lack of confidence and experience	Count	11	13	24
		% within Q10.4.3r	34.4%	23.6%	
	Lack of teamwork and trust	Count	5	10	15
		% within Q10.4.3r	15.6%	18.2%	
	Language barrier	Count	1	9	10
		% within Q10.4.3r	3.1%	16.4%	
	Increased workload	Count	2	7	9
		% within Q10.4.3r	6.3%	12.7%	
	Stress and fatigue	Count	0	2	2
		% within Q10.4.3r	0.0%	3.6%	
	Lack of senior involvement	Count	1	0	1
		% within Q10.4.3r	3.1%	0.0%	
	Lack of confidentiality	Count	3	0	3
		% within Q10.4.3r	9.4%	0.0%	
Total		Count	32	55	87

Percentages and totals are based on responses.
a. Group

Out of 32 responses who “Disagreed” with the statement in Q10.4.3, 34.4% indicated that “Lack of confidence and experience” was the reason nurses could not communicate effectively and 21.9% believed that ineffective communication during bedside clinical handover was due to “Timeliness”.

Of the 55 responses who “Agreed” that working hours affected effective clinical handover, 23.6% indicated that “Lack of confidence and experience” prevented the nurses from communicating effectively during bedside clinical handover. A further 18.2% attributed ineffective communication to “Lack of teamwork and trust”.

Table 4.68 Factors preventing the nurses from communicating effectively during bedside clinical handover in relation to organisational climate

$MRQ13*Q10.4.4r Crosstabulation

			Q10.4.4r: Organisational climate		
			Disagree	Agree	Total
$MRQ13[a]	Timelines	Count	6	10	16
		% within Q10.4.4r	25.0%	15.9%	
	Interruptions	Count	1	6	7
		% within Q10.4.4r	4.2%	9.5%	
	Lack of confidence and experience	Count	10	14	24
		% within Q10.4.4r	41.7%	22.2%	
	Lack of teamwork and trust	Count	1	14	15
		% within Q10.4.4r	4.2%	22.2%	
	Language barrier	Count	0	10	10
		% within Q10.4.4r	0.0%	15.9%	
	Increased workload	Count	2	7	9
		% within Q10.4.4r	8.3%	11.1%	
	Stress and fatigue	Count	1	1	2
		% within Q10.4.4r	4.2%	1.6%	
	Lack of senior involvement	Count	1	0	1
		% within Q10.4.4r	4.2%	0.0%	
	Lack of confidentiality	Count	2	1	3
		% within Q10.4.4r	8.3%	1.6%	
Total		Count	24	63	87

Percentages and totals are based on responses.
a. Group

Of the 24 responses who “Disagreed” that organizational climate affected effective clinical handover, 41.7% indicated that “Lack of confidence and experience” prevented nurses from communicating effectively during bedside clinical handover. A further 25% indicated “Timeliness” was the reason for ineffective communication.

Of the 63 responses who “Agreed” with the statement in Q10.4.4, 22.2% indicated both “Lack of confidence and experience” and “Lack of teamwork and trust” as contributing factors to ineffective communication during bedside clinical handover.

Table 4.69 Factors preventing the nurses from communicating effectively during bedside clinical handover in relation to education and information

$MRQ13*Q10.4.5r Crosstabulation

			Q10.4.5r: Education and information		
			Disagree	Agree	Total
$MRQ13[a]	Timelines	Count	5	11	16
		% within Q10.4.5r	22.7%	16.9%	
	Interruptions	Count	1	6	7
		% within Q10.4.5r	4.5%	9.2%	
	Lack of confidence and experience	Count	7	17	24
		% within Q10.4.5r	31.8%	26.2%	
	Lack of teamwork and trust	Count	3	12	15
		% within Q10.4.5r	13.6%	18.5%	
	Language barrier	Count	3	7	10
		% within Q10.4.5r	13.6%	10.8%	
	Increased workload	Count	1	8	9
		% within Q10.4.5r	4.5%	12.3%	
	Stress and fatigue	Count	1	1	2
		% within Q10.4.5r	4.5%	1.5%	
	Lack of senior involvement	Count	0	1	1
		% within Q10.4.5r	0.0%	1.5%	
	Lack of confidentiality	Count	1	2	3
		% within Q10.4.5r	4.5%	3.1%	
Total		Count	22	65	87

Percentages and totals are based on responses.
a. Group

In **Table 4.69**, 22 responses who “Disagreed” that education and training affected effective clinical handover, 31.8% indicated that “Lack of confidence and experience” prevented nurses from communicating effectively during bedside clinical handover. A further 22.7% alluded “Timeliness” to ineffective communication.

Of the 65 responses who “Agreed” that education and training affected effective clinical handover, 26.2% indicated that a “Lack of confidence and experience” was related to ineffective communication during bedside clinical handover. Only 18.5% mentioned a “Lack of teamwork and trust” to be related to ineffective communication during bedside clinical handover.

Table 4.70 Factors preventing the nurses from communicating effectively during bedside clinical handover in relation to Nurse Factors: Education, competencies and training

$MRQ13*Q10.5.1r Crosstabulation

			Q10.5.1r: Nurse Factors: Education, competencies and training		
			Disagree	Agree	Total
$MRQ13[a]	Timelines	Count	3	13	16
		% within Q10.5.1r	15.8%	19.1%	
	Interruptions	Count	3	4	7
		% within Q10.5.1r	15.8%	5.9%	
	Lack of confidence and experience	Count	6	18	24
		% within Q10.5.1r	31.6%	26.5%	
	Lack of teamwork and trust	Count	3	12	15
		% within Q10.5.1r	15.8%	17.6%	
	Language barrier	Count	3	7	10
		% within Q10.5.1r	15.8%	10.3%	
	Increased workload	Count	0	9	9
		% within Q10.5.1r	0.0%	13.2%	
	Stress and fatigue	Count	0	2	2
		% within Q10.5.1r	0.0%	2.9%	
	Lack of senior involvement	Count	0	1	1
		% within Q10.5.1r	0.0%	1.5%	
	Lack of confidentiality	Count	1	2	3
		% within Q10.5.1r	5.3%	2.9%	
Total		Count	19	68	87

Percentages and totals are based on responses.
a. Group

Out of 19 responses who “Disagreed” that nurse factors such as education, competencies and training affected effective clinical handover, 31.6% indicated that a “Lack of confidence and experience” prevented nurses from communicating effectively during bedside clinical handover. In addition, 15.8% simultaneously linked the statement in Q10.5.1 to “Timelines”, “Interruptions”, “Language barrier” and “Lack of teamwork and trust”.

However, the majority (n=68) of participants who “Agreed” that education, competencies and training affected effective clinical handover, 26.5% indicated that “Lack of confidence and experience” was associated to ineffective communication during bedside clinical handover. A further 17.6% related ineffective communication during bedside clinical handover to “Lack of teamwork and trust”.

Table 4.71 Factors preventing the nurses from communicating effectively during bedside clinical handover in relation to Nurse Factors: Perceptual, cognitive and physical abilities

$MRQ13*Q10.5.2r Crosstabulation

			Q10.5.2r: Perceptual, cognitive and physical abilities		
			Disagree	Agree	Total
$MRQ13[a]	Timelines	Count	2	14	16
		% within Q10.5.2r	9.5%	21.2%	
	Interruptions	Count	3	4	7
		% within Q10.5.2r	14.3%	6.1%	
	Lack of confidence and experience	Count	8	16	24
		% within Q10.5.2r	38.1%	24.2%	
	Lack of teamwork and trust	Count	2	13	15
		% within Q10.5.2r	9.5%	19.7%	
	Language barrier	Count	3	7	10
		% within Q10.5.2r	14.3%	10.6%	
	Increased workload	Count	0	9	9
		% within Q10.5.2r	0.0%	13.6%	
	Stress and fatigue	Count	1	1	2
		% within Q10.5.2r	4.8%	1.5%	
	Lack of senior involvement	Count	0	1	1
		% within Q10.5.2r	0.0%	1.5%	
	Lack of confidentiality	Count	2	1	3
		% within Q10.5.2r	9.5%	1.5%	
Total		Count	21	66	87

Percentages and totals are based on responses.
a. Group

Of the 21 responses who “Disagreed” with the statement in Q10.5.2, only 38.1%indicated that “lack of confidence and experience” were related to factors preventing nurses from communicating effectively during bedside clinical handover.

Out of 66 responses who “Agreed” that perceptual, cognitive and physical disabilities affected effective communication during bedside clinical handover, 24.2% attributed “Lack of confidence and experience” to the inefficiencies. In addition, 21.2% indicated that “Timeliness” prevented nurses from communicating effectively during bedside clinical handover.

Table 4.72 Factors preventing the nurses from communicating effectively during bedside clinical handover in relation to Nurse Factors: Stress and fatigue

$MRQ13*Q10.5.3r Crosstabulation

			Q10.5.3r: Stress and fatigue		
			Disagree	Agree	Total
$MRQ13[a]	Timelines	Count	2	14	16
		% within Q10.5.3r	9.1%	21.5%	
	Interruptions	Count	1	6	7
		% within Q10.5.3r	4.5%	9.2%	
	Lack of confidence and experience	Count	8	16	24
		% within Q10.5.3r	36.4%	24.6%	
	Lack of teamwork and trust	Count	6	9	15
		% within Q10.5.3r	27.3%	13.8%	
	Language barrier	Count	3	7	10
		% within Q10.5.3r	13.6%	10.8%	
	Increased workload	Count	0	9	9
		% within Q10.5.3r	0.0%	13.8%	
	Stress and fatigue	Count	0	2	2
		% within Q10.5.3r	0.0%	3.1%	
	Lack of senior involvement	Count	0	1	1
		% within Q10.5.3r	0.0%	1.5%	
	Lack of confidentiality	Count	2	1	3
		% within Q10.5.3r	9.1%	1.5%	
Total		Count	22	65	87

Percentages and totals are based on responses.
a. Group

In **Table 4.72**, out of 22 responses who “Disagreed” that stress and fatigue affected effective clinical handover, 36.4% indicated that a “Lack of confidence and experience” were related to ineffective communication during bedside clinical handover. In addition, 27.3% indicated that “Lack of teamwork and trust” were linked to a statement in Q10.5.3 which prevented nurses from communicating effectively.

Of the 65 responses who “Agreed” that stress and fatigue affected effective clinical handover, 24.6% associated “Lack of confidence and experience” and 21.5% associated “Timeliness” with inability to communicate effectively during bedside clinical handover.

Table 4.73 Factors preventing the nurses from communicating effectively during bedside clinical handover in relation to Nurse Factors: Situation awareness

$MRQ13*Q10.5.4r Crosstabulation

			Q10.5.4r: Situation awareness		
			Disagree	Agree	Total
$MRQ13[a]	Timelines	Count	4	12	16
		% within Q10.5.4r	12.5%	21.8%	
	Interruptions	Count	1	6	7
		% within Q10.5.4r	3.1%	10.9%	
	Lack of confidence and experience	Count	13	11	24
		% within Q10.5.4r	40.6%	20.0%	
	Lack of teamwork and trust	Count	6	9	15
		% within Q10.5.4r	18.8%	16.4%	
	Language barrier	Count	4	6	10
		% within Q10.5.4r	12.5%	10.9%	
	Increased workload	Count	1	8	9
		% within Q10.5.4r	3.1%	14.5%	
	Stress and fatigue	Count	1	1	2
		% within Q10.5.4r	3.1%	1.8%	
	Lack of senior involvement	Count	0	1	1
		% within Q10.5.4r	0.0%	1.8%	
	Lack of confidentiality	Count	2	1	3
		% within Q10.5.4r	6.3%	1.8%	
Total		Count	32	55	87

Percentages and totals are based on responses.
a. Group

Of the 32 responses who “Disagreed” that situation awareness affected effective clinical handover, 40.6% indicated that “Lack of confidence and experience” during bedside clinical handover prevented nurses from communicating effectively. A further 18.8% indicated that ineffective communication was related to “Lack of teamwork and trust”.

Out of 55 responses who “Agreed” that situation awareness affected effective clinical handover, 21.8% indicated that “Timeliness” contributed to ineffective bedside clinical handover. Again, 20% also pointed to “Lack of confidence and experience” prevented nurses from communicating effectively during bedside clinical handover.

Table 4.74 Observation of patient rights during handover

$MRQ13*Q11.2r Crosstabulation

			Q11.2r: Privacy and confidentiality		
			Disagree	Agree	Total
$MRQ13[a]	Timelines	Count	4	12	16
		% within Q11.2r	13.8%	20.7%	
	Interruptions	Count	1	6	7
		% within Q11.2r	3.4%	10.3%	
	Lack of confidence and experience	Count	11	13	24
		% within Q11.2r	37.9%	22.4%	
	Lack of teamwork and trust	Count	7	8	15
		% within Q11.2r	24.1%	13.8%	
	Language barrier	Count	2	8	10
		% within Q11.2r	6.9%	13.8%	
	Increased workload	Count	1	8	9
		% within Q11.2r	3.4%	13.8%	
	Stress and fatigue	Count	2	0	2
		% within Q11.2r	6.9%	0.0%	
	Lack of senior involvement	Count	1	0	1
		% within Q11.2r	3.4%	0.0%	
	Lack of confidentiality	Count	0	3	3
		% within Q11.2r	0.0%	5.2%	
Total		Count	29	58	87

Percentages and totals are based on responses.
a. Group

In **Table 4.74**, of the 29 responses who “Disagreed” that patient right to privacy and confidentiality is observed during bedside clinical handover, 37.9% indicated that “Lack of confidence and experience” prevented this observation. 24.1% also indicated that failure to observe this right was related to “Lack of teamwork and trust”.

Of the 58 responses who “Agreed” that privacy and confidentiality were observed during bedside clinical handover, 22.4% attributed it to “Lack of confidence and experience” whilst 20.7% associated the observation of this right to “Timeliness”.

4.4 SUMMARY

This chapter discussed the descriptive and comparative statistics that were used to describe and analyse the data collected and presented the data and interpretation of the findings. In the next chapter, summary of the research findings, limitations of the study, implications as well as recommendation of the study are discussed.

CHAPTER 5: IMPLICATIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

This chapter provides research findings, recommendations for clinical practice, implications, conclusion as well as limitations of the study based on the themes discussed in Chapter 4.

5.2. SUMMARY OF THE STUDY

5.2.1 Aim of the study

The aim of the study was to obtain the perception of the registered nurses regarding nurse-nurse communication during bedside clinical handover in a level three private hospital of Mpumalanga province.

5.2.2 Objective of the study

The objective of the study was to describe how registered nurses in selected units in a private hospital in Mpumalanga province perceive nurse-nurse communication during clinical bedside handover.

5.2.3 Methodology

To meet the study objective, a descriptive, quantitative design was used. Ethical approval (315/2018) was obtained from the Research Ethics Committee of the faculty of Health Sciences, University of Pretoria. Permission was also obtained from the private hospital group research committee.

The target population was registered nurses performing bedside clinical handover in nine units (Gynaecology and Urology, Neuro-Orthopaedic, Surgical 1, Cardiology, Oncology, Obstetrics, Paediatrics and two Medical units) of the selected hospital under study. To assess the feasibility of the study pilot testing was conducted prior to commencement of the main study. A structured questionnaire tool was tested on two registered nurses (n=2) who are working in the specialised units of the selected hospital under study.

Data from the questionnaires were recorded onto Microsoft Excel and then transferred to Statistical Package of Social Sciences (SPSS) for screening and cleaning. Nominal scaled variables, frequencies and percentages were displayed in numbers. Themes and subthemes in an open-ended questions were identified and analysed.

5.3 SUMMARY OF MAIN RESULTS

Of the total sample responded (n=51), the majority of participants were females than males. More than 74% (n=38) of the registered nurses were younger professionals being less than 40 years of age. Of these total participants, the majority (n=35) had less than ten years working experience and obtained diploma (n=42) as a qualification. The majority of these registered nurses were satisfied with the handover practice in section B. There might also be a link between the qualifications and years of experience with regard to the quality of bedside clinical handover as evident in section C, which is mentioned later.

The participants agreed that current handover is done at the bedside, is time efficient, consistent for each patient, is guided by a standardised tool and addresses the safety of patient issues. In addition, they agreed that all categories of nursing staff (registered nurse, enrolled nurse and auxiliary nurse) and patients are involved during the handover process. Nurses are expected to communicate with each other regarding their patients and in a face-to-face manner with their patient at the bedside and these moments can facilitate effective interaction to occur between the nurse and the patient, which is patient-centered (Newell and Jordan 2015:78). However, some participants (n=23) felt that their supervisors were not involved with bedside clinical handover. This result provides important information to nurse managers as it suggests the importance of their involvement during bedside clinical handover in order to guide the less experienced nurses with handover process.

This study found that task factors, environmental factors, organisational factors and nurse factors affected the quality of bedside handover. According to Gharaveis, Hamilton and Pati (2018:131), private and peaceful spaces are beneficial in promoting communication and that patient-staff communication is improved in private rooms in comparison to shared rooms. This is confirmed by some of the participants' feedback (n=4) that handover should rather be conducted at the nurses' station as it was not possible to maintain patients' privacy in shared rooms. The participants are of the view that organisational climate, education and information impacted communication negatively. The results highlight the need for nurse managers to ensure that staff is positively engaged and ensuring that training provided yields positive outcomes.

Nurse factors such as education; competencies and training; perceptual, cognitive and physical disabilities; stress and fatigue; and situation awareness were acknowledged strongly by participants as negatively impacting the quality of bedside clinical handover. Bedside clinical handover is a complex interaction in an environment rife with environmental and team-based factors that can influence its effectiveness.

According to the participants, patients' rights are observed during bedside handover. This means that patients do participate in decision making on matters affecting their health whilst privacy and confidentiality are maintained. Clinical competence, patient and staff involvement, language, time management, privacy and confidentiality and documentation were mentioned by participants in an open-ended questions as components that could improve bedside clinical handover. However, timeliness, interruptions, lack of confidence and experience, lack of teamwork and trust, language barriers, increased workload, lack of senior involvement and lack of confidentiality were some of the concerns expressed by registered nurses as factors preventing them from communicating effectively. These concerns might reflect their level of confidence and experience in communicating effectively.

The results from this study indicated that registered nurses held similar views regarding the perception of the communication during bedside clinical handover.

5.4 LIMITATIONS

The researcher acknowledges that there were limitations in conducting the study. The aim of the study was to establish whether registered nurses' perceptions regarding bedside clinical handover to be directly linked to poor quality patient outcomes. However, the study only captured a small number of participants and may not be representative of the entire nurse population in the designated hospital due to the nature of the selection of participants.

Although the registered nurses perceived the handover to be effective and guided by the standardised tool, the researcher is got the impression that they are referring to the patient bed list, as no specific standardised tool is being used during bedside clinical handover. In addition, some of the responses such as handover process and the perception of bedside clinical handover in the context of quality and safety in section B were rated high by the participants, which is somehow inconsistent to the responses given in section C. This may be due to the fact that the participants were not subjected to any training in relation to the tool and might have responded as they deemed fit. Therefore, the researcher is of the opinion that the tool might not have been clearly understood by the participants. Bedside clinical handover is considered current best practice because of the opportunity to reduce errors and increase patient engagement. Another possible limitation of this study is that the responses are based on registered nurses' perceptions which means that answers reflect what participants think, the reality may be very different from the current practice in the nursing units.

5.5 RECOMMENDATIONS

The study revealed that registered nurses at the hospital under study experienced various challenges with regard to communication and bedside clinical handover. Therefore, it is imperative that nurse managers take note of the gaps identified and intervene so that the registered nurses are fully supported to optimise their full potential in order for them to develop into capable and skilful practitioners. The results of the study were used to make recommendations for clinical nursing practice, nursing education and future research.

5.5.1 Recommendations for nursing practice

- It is imperative that nurse managers take the responsibility of ensuring that bedside clinical handover forms part of the induction and personnel development programme.
- Unit managers should be actively involved in bedside clinical handover to assist nurses in building their confidence by reinforcing the practice of speaking up the official language (English) of the hospital.
- Respect and communication openness must be endorsed and be aligned with the hospital value, which is mutual trust and respect.
- A standardised handover tool should be formulated and its effectiveness be evaluated with a sample of nurses across the private hospital group according to their years of experience and educational background. This will ensure consistency throughout the hospital.
- The environmental design or layout of the units should be looked into as it plays a significant role in improving communication during bedside clinical handover.

5.5.2 Recommendations for nursing education

- Bedside clinical handover and good communication skills should be part of the nursing curriculum in basic training of nurses in South Africa.
- An online education (e-learning) program could include effective bedside clinical handover process.
- Training programs on cultural diversity, teamwork and patient safety in the learning environment will strengthen the workforce and prevent unnecessary conflict amongst the nurses in the unit during bedside clinical handover.

5.5.3 Recommendations for future research

- Future studies should involve all nursing categories in order to explore their perceptions on bedside clinical handover.

- Studies to be conducted on the role of unit managers in supporting bedside clinical handover.
- The quality of information transferred during bedside clinical handover should be evaluated to ensure that relevant clinical data is communicated.
- Qualitative research will be of great value to explore possible strategies to improve bedside clinical handover practices amongst nurses.

5.6 IMPLICATIONS

The study explored the perceptions of registered nurses regarding nurse-nurse communication during bedside clinical handover and has important implications towards clinical practice. Good clinical handover is essential in closing the gap in communication. It is therefore equally important to understand the cultural-specific practices with specific reference to language. South Africa has a multi-cultural society and therefore understanding diversity in the workplace is vital in promoting teamwork. Effective communication leads to improved staff satisfaction and situation awareness as nurses will have more control over the situation, thereby managing workload and delivering quality care. The evidence from this study further suggests that registered nurses could obtain handover information from the patients' records which means that they believe in their record keeping. Therefore, it would be essential to assess documentation during bedside clinical handover process. Effective communication enhances staff satisfaction, decreases anxiety/stress and promotes effective teamwork. The environmental design or layout of the unit may enhance good communication and promote teamwork.

5.7 CONCLUSION

Effective communication during bedside clinical handover amongst registered nurses, is an essential component in ensuring quality care in clinical practice and has major implications on patient safety. The study demonstrated that there is still work to be done to ensure bedside clinical handover meets the required standard to ensure safe, quality patient care. Nursing unit managers in the designated hospital, can enhance communication by implementing a standardised handover tool as a guideline as well as staff training to improve communication during bedside clinical handover. These interventions can lead to positive patient outcomes as it will improve clinical competence and boost the confidence of inexperienced nurses when communicating during bedside clinical handover.

It is also evident that ineffective communication during bedside clinical handover can lead to various negative outcomes: overworked and dissatisfied staff, poor teamwork which will eventually compromise patient safety. Task factors, environmental factors, organisational

factors and nurse factors have a definite impact in effective clinical handover in the healthcare setting and influences nurses' experience. Therefore, bedside clinical handover is a complicated interaction which can be influenced by different factors that can influence its effectiveness and nurses should be aware of such. In addition, bedside clinical handover should be conducted in a language understood by all to avoid adverse events due to loss of vital information during their communication. An audit and feedback strategy to regularly inform the team of their performance should be considered to sustain the desired way of practice. The results will be used to inform the future research on nurse-to-nurse handover with the aim to improve communication.

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ANNEXURES

ANNEXURE A Declaration regarding plagiarism

DECLARATION

I, Eva Otshepeng Mhlongo, declare that the dissertation titled

PERCEPTIONS OF REGISTERED NURSES REGARDING NURSE-NURSE COMMUNICATION DURING BEDSIDE CLINICAL HANDOVER IN A PRIVATE HOSPITAL IN MPUMALANGA PROVINCE

is my original work and it has not been submitted before for any degree or examination at any other University or institution, I further declare that all the sources that have been used or quoted have been acknowledged by means of approved Harvard referencing (2006).

Signed at Nelspruit on this 17th day of February 2020.

Signature EO Mhlongo

ANNEXURE B Questionnaire

PARTICIPANT'S INFORMATION DOCUMENT

Researcher's name: Eva Otshepeng Mhlongo	
Student Number	u26441162
Department of	Nursing Science, University of Pretoria

Dear Participant

PERCEPTIONS OF REGISTERED NURSES REGARDING NURSE-NURSE COMMUNICATION DURING BEDSIDE CLINICAL HANDOVER

I am a MNurs student in the in the Department of Nursing Science**,** University of Pretoria. You are invited to volunteer to participate in my research project on Perceptions of Registered Nurses Regarding Bedside Clinical Handover.

This letter gives information to help you to decide if you want to take part in this study. Before you agree you should fully understand what is involved. If you do not understand the information or have any other questions, do not hesitate to ask us. You should not agree to take part unless you are completely happy about what we expect of you.

The purpose of the study is to describe the perception of registered nurses regarding communication during bedside clinical handover.

I would like you to complete a questionnaire. This may take about 10 minutes. Please put the completed questionnaire in the sealed box provided in the unit manager's office. I will personally collect the sealed boxes and remove it to a safe place outside the hospital to ensure confidentiality. Please do not write your name on the questionnaire.

I will be available to help you with the questionnaire if necessary. The questionnaire is divided into different sections that focus on your personal details such as age and qualifications and various aspects of communication during bedside clinical handover. You need not answer questions that are of a sensitive nature to you.

The Research Ethics Committee of the University of Pretoria, Faculty of Health Sciences, telephone numbers 012 356 3084 / 012 356 3085 granted written approval for this study as well as the Hospital General Manager of the hospital. In addition, permission has been obtained from the CEO of the company as well as the Nursing Manager to conduct research in the selected units of the hospital. The hospital management will receive a copy of the outcome of study.

Your participation in this study is voluntary. You can refuse to participate or stop at any time without giving any reason. As you do not write your name on the questionnaire, you give me the information anonymously. Once you have given the questionnaire back to me, you cannot recall your consent. I will not be able to trace your information. Therefore, you will also not be identified as a participant in any publication that comes from this study.

Note: The implication of completing the questionnaire is that informed consent has been obtained from you. Thus, any information derived from your form (which will be totally anonymous) may be used for e.g. publication, by the researcher.

I sincerely appreciate your help.

Yours truly,

Eva Otshepeng Mhlongo **071 281 8196**

Respondent number *(Office use only)*

SECTION A - In this section you are required to provide some personal information

Please indicate your choice by marking with an X or write your answer in the space provided.

		For office use	
1. Gender:		Q1	
	Male		
	Female		
2. Age		Q2	
	21 - 25		
	26 - 30		
	31 - 35		
	36 - 40		
	41 - 45		
	46 and above		
3. How many years of experience do you have as a Registered Nurse?		Q3	
	Less than 2 years		
	2 - 5 years		
	6 - 10 years		
	11 - 15 years		
	16 years and above		
4. What is your home language? Please write below:		Q4	
_____			

5. Highest qualification obtained? Please write below:

Q5	

SECTION B - Perceptions about bedside clinical handover

Please indicate the extent to which you agree or disagree with each of the following statements:

1 = Strongly Disagree 2 = Disagree 3 = Agree 4 = Strongly Agree

					For office use	
6. The current bedside clinical handover						
6.1. Is done at the bedside	1	2	3	4	Q6.1	
6.2. Is time efficient	1	2	3	4	Q6.2	
6.3. Is consistent for each patient	1	2	3	4	Q6.3	
6.4. Is guided by a standardised tool	1	2	3	4	Q6.4	
6.5. Addresses patient safety issues e.g. fall risk, pressure ulcers etc.	1	2	3	4	Q6.5	
7. The following are involved during bedside clinical handover:						
7.1. Registered Nurses	1	2	3	4	Q7.1	
7.2. Enrolled Nurses	1	2	3	4	Q7.2	
7.3. Auxiliary Nurses	1	2	3	4	Q7.3	
7.4. Supervisor	1	2	3	4	Q7.4	
7.5. Patient	1	2	3	4	Q7.5	
8. During handover, I have observed the following communication skills:						
8.1. Effective listening	1	2	3	4	Q8.1	
8.2 Nonverbal communication	1	2	3	4	Q8.2	
8.3 Focus of attention	1	2	3	4	Q8.3	
8.4 Interaction of staff (Teamwork with trust)	1	2	3	4	Q8.4	

8.5 Assertiveness whilst handing over	1	2	3	4	Q8.5	

9. During handover,

9.1 I am able to clarify information given to me	1	2	3	4	Q9.1	
9.2 I am provided with sufficient information about my patient	1	2	3	4	Q9.2	
9.3 The information I receive is up to date	1	2	3	4	Q9.3	
9.4 I have the opportunity to ask questions about the things I do not understand	1	2	3	4	Q9.4	
9.5 I am educated about the different aspect of patient care	1	2	3	4	Q9.5	
9.6 The way in which information is presented is easy to follow	1	2	3	4	Q9.6	
9.7 I find handover takes too much time	1	2	3	4	Q9.7	
9.8 I am often given information that is not relevant to patient care	1	2	3	4	Q9.8	
9.9 I could obtain handover information on the patient records	1	2	3	4	Q9.9	
9.10 I am interrupted by patients or family members	1	2	3	4	Q9.10	

10. The following factors affects effective clinical handover

10.1 Task factors						
10.1.1 Patient care	1	2	3	4	Q10.1.1	
10.1.2 Non nursing task	1	2	3	4	Q10.1.2	
10.1.3 Documentation	1	2	3	4	Q10.1.3	
10.1.4 Multi-tasking due to pending task	1	2	3	4	Q10.1.4	
10.2 Technology and tools						
10.2.1 Use of cell phones during handover	1	2	3	4	Q10.2.1	
10.2.2 Training	1	2	3	4	Q10.2.2	
10.2.3 Patient handling aids e.g. wheelchairs	1	2	3	4	Q10.2.3	

10.3 Environmental factors						
10.3.1 Number of beds in the room	1	2	3	4	Q10.3.1	
10.3.2 Physical obstruction to patients	1	2	3	4	Q10.3.2	
10.3.3 Lighting and noise	1	2	3	4	Q10.3.3	
10.3.4 Physical layout of the room	1	2	3	4	Q10.3.4	
10.4 Organisational factors						
10.4.1 Patient workload	1	2	3	4	Q10.4.1	
10.4.2 Less staffing	1	2	3	4	Q10.4.2	
10.4.3 Work hours	1	2	3	4	Q10.4.3	
10.4.4 Organisational climate	1	2	3	4	Q10.4.4	
10.4.5 Education and information	1	2	3	4	Q10.4.5	
10.5 Nurse Factors						
10.5.1 Education, competencies and training	1	2	3	4	Q5.1.1	
10.5.2 Perceptual, cognitive and physical abilities	1	2	3	4	Q5.1.2	
10.5.3 Stress and fatigue	1	2	3	4	Q5.1.3	
10.5.4 Situation awareness	1	2	3	4	Q5.1.4	
11. During handover, the following patients' rights are observed						
11.1 Participation in decision making	1	2	3	4	Q11.1	
11.2 Privacy and confidentiality	1	2	3	4	Q11.2	

SECTION C - Own opinion regarding communication during bedside clinical handover

12. What do you think can be done to improve communication during bedside clinical handover?

Q12	

13. What are the things that prevents nurses from communicating effectively?

Q13	

Thank you for taking time to participate in the study

ANNEXURE C Participant information document

PARTICIPANT'S INFORMATION DOCUMENT

Researcher's name: Eva Otshepeng Mhlongo	
Student Number	u26441162
Department of	Nursing Science, University of Pretoria

Dear Participant

PERCEPTIONS OF REGISTERED NURSES REGARDING NURSE-NURSE COMMUNICATION DURING BEDSIDE CLINICAL HANDOVER

I am a MNurs student in the in the Department of Nursing Science**,** University of Pretoria. You are invited to volunteer to participate in my research project on Perceptions of Registered Nurses Regarding Bedside Clinical Handover.

This letter gives information to help you to decide if you want to take part in this study. Before you agree you should fully understand what is involved. If you do not understand the information or have any other questions, do not hesitate to ask us. You should not agree to take part unless you are completely happy about what we expect of you.

The purpose of the study is to describe the perception of registered nurses regarding communication during bedside clinical handover.

I would like you to complete a questionnaire. This may take about 10 minutes. Please put the completed questionnaire in the sealed box provided in the unit manager's office. I will personally collect the sealed boxes and remove it to a safe place outside the hospital to ensure confidentiality. Please do not write your name on the questionnaire.

I will be available to help you with the questionnaire if necessary. The questionnaire is divided into different sections that focus on your personal details such as age and qualifications and various aspects of communication during bedside clinical handover. You need not answer questions that are of a sensitive nature to you.

The Research Ethics Committee of the University of Pretoria, Faculty of Health Sciences, telephone numbers 012 356 3084 / 012 356 3085 granted written approval for this study as well as the Hospital General Manager of the hospital. In addition, permission has been obtained from the CEO of the company as well as the Nursing Manager to conduct research in the selected units of the hospital. The hospital management will receive a copy of the outcome of study.

Your participation in this study is voluntary. You can refuse to participate or stop at any time without giving any reason. As you do not write your name on the questionnaire, you give me the information anonymously. Once you have given the questionnaire back to me, you cannot recall your consent. I will not be able to trace your information. Therefore, you will also not be identified as a participant in any publication that comes from this study.

Note: The implication of completing the questionnaire is that informed consent has been obtained from you. Thus, any information derived from your form (which will be totally anonymous) may be used for e.g. publication, by the researcher.

I sincerely appreciate your help.

Yours truly,

Eva Otshepeng Mhlongo **071 281 8196**

ANNEXURE D Letter of permission to conduct study

Permission to access Records / Files / Data base at Mediclinic Nelspruit

To: Hospital Manager
Mediclinic Nelspruit

Mrs. Carmen Savva

From: The Investigator
Mediclinic Nelspruit

Mrs. Eva Mhlongo

Re: Permission to do research at Mediclinic Nelspruit

Mrs. Eva Mhlongo is a researcher working at Nursing Management, Department of Management & Administration at Mediclinic Nelspruit. I am requesting permission to conduct a study on the Mediclinic Nelspruit grounds that involves access to patient records.

The request is lodged with you in terms of the requirements of the Promotion of Access to Information Act. No. 2 of 2000.

The title of the study is: **Perception of registered nurses regarding nurse-nurse communication during bedside clinical handover**

The researcher request access to the following information:

Access to the clinical files, record book and the data base.

I intend to publish the findings of the study in a professional journal and/ or at professional meeting like symposia, congresses, or other meetings of such a nature.

I intend to protect the personal identity of the participants by assigning each participant a random code number.

I undertake not to proceed with the study until we have received approval from the Faculty of Health Sciences Research Ethics Committee, University of Pretoria.

Yours sincerely

Signature of the Principle Investigator

Permission to do the research study at this hospital and to access the information as requested, is hereby approved.

Hospital Manager

Mediclinic Nelspruit

Carmen Savva

Signature of the Hospital Manager

MEDICLINIC NELSPRUIT
PRACTICE No. 5808340
LOUISE STREET SONHEUWEL EXT 1
NELSPRUIT 1200
TEL: (013) 759 0500 FAX: (013) 745 7135

MEDICLINIC NELSPRUIT
PRACTICE No. 5808340
LOUISE STREET SONHEUWEL EXT 1
NELSPRUIT 1200
TEL: (013) 759 0500 FAX: (013) 745 7135

Hospital Official Stamp

MEDICLINIC

RESEARCH APPLICATION – EO MHLONGO

Date: 10 September 2018

FOR APPROVAL

G VAN WYK Chief Human Resources Officer

NOTES

Locality	• Mediclinic Nelspruit
Value of Study	• Confirmed
Employee	• Yes
Topic/Title	• Perception of Registered Nurses regarding communication during bedside clinical handover
Impact	• RNs at Mediclinic Nelspruit
Supported by hospital	• Supported by: A Meyer (Nursing Manager Mediclinic Nelspruit)

ANNEXURE E: Ethics approval

The Research Ethics Committee, Faculty Health Sciences, University of Pretoria complies with ICH-GCP guidelines and has US Federal wide Assurance.
- FWA 00002567, Approved dd 22 May 2002 and Expires 03/20/2022.
- IRB 0000 2235 IORG0001762 Approved dd 22/04/2014 and Expires 03/14/2020.

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Health Sciences Research Ethics Committee

28/06/2018

Approval Certificate
New Application

Ethics Reference No: 315/2018

Title: Perceptions of registered nurses regarding nurse-nurse communication during bedside clinical handover in a private hospital in Mpumalanga province

Dear Eva Mhlongo

The **New Application** as supported by documents specified in your cover letter dated 18/06/2018 for your research received on the 22/06/2018, was approved by the Faculty of Health Sciences Research Ethics Committee on its quorate meeting of 27/06/2018.

Please note the following about your ethics approval:
- Ethics Approval is valid for 1 year
- Please remember to use your protocol number (**315/2018**) on any documents or correspondence with the Research Ethics Committee regarding your research.
- Please note that the Research Ethics Committee may ask further questions, seek additional information, require further modification, or monitor the conduct of your research.

Ethics approval is subject to the following:
- The ethics approval is conditional on the receipt of **6 monthly written Progress Reports**, and
- The ethics approval is conditional on the research being conducted as stipulated by the details of all documents submitted to the Committee. In the event that a further need arises to change who the investigators are, the methods or any other aspect, such changes must be submitted as an Amendment for approval by the Committee.

Additional Conditions:
- Approval is conditional upon the Research Ethics Committee receiving CEO permission.

We wish you the best with your research.

Yours sincerely

Dr R Sommers, MBChB; MMed (Int); MPharMed,PhD
Deputy Chairperson of the Faculty of Health Sciences Research Ethics Committee, University of Pretoria

The Faculty of Health Sciences Research Ethics Committee complies with the SA National Act 61 of 2003 as it pertains to health research and the United States Code of Federal Regulations Title 45 and 46. This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki, the South African Medical Research Council Guidelines as well as the Guidelines for Ethical Research: Principles Structures and Processes, Second Edition 2015 (Department of Health).

☎ 012 356 3084 deepeka.behari@up.ac.za / fhsethics@up.ac.za http://www.up.ac.za/healthethics
Private Bag X323, Arcadia, 0007 - Tswelopele Building, Level 4, Room 60 / 61, 31 Bophelo Road, Gezina, Pretoria

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Health Sciences

The Research Ethics Committee, Faculty Health Sciences, University of Pretoria complies with ICH-GCP guidelines and has US Federal wide Assurance.

- FWA 00002567, Approved dd 22 May 2002 and Expires 03/20/2022.
- IRB 0000 2235 IORG0001762 Approved dd 22/04/2014 and Expires 03/14/2020.

12 February 2020

Approval Certificate
Annual Renewal

Ethics Reference No.: 315/2018
Title: Perception of registered nurses regarding nurse-nurse communication during bedside clinical handover

Dear Mrs EO Mhlongo

The **Annual Renewal** as supported by documents received between 2020-01-30 and 2020-02-12 for your research, was approved by the Faculty of Health Sciences Research Ethics Committee on its quorate meeting of 2020-02-12.

Please note the following about your ethics approval:

- Renewal of ethics approval is valid for 1 year, subsequent annual renewal will become due on 2021-02-12.
- Please remember to use your protocol number (315/2018) on any documents or correspondence with the Research Ethics Committee regarding your research.
- Please note that the Research Ethics Committee may ask further questions, seek additional information, require further modification, monitor the conduct of your research, or suspend or withdraw ethics approval.

Ethics approval is subject to the following:

- The ethics approval is conditional on the research being conducted as stipulated by the details of all documents submitted to the Committee. In the event that a further need arises to change who the investigators are, the methods or any other aspect, such changes must be submitted as an Amendment for approval by the Committee.

We wish you the best with your research.

Yours sincerely

Dr R Sommers
MBChB MMed (Int) MPharmMed PhD
Deputy Chairperson of the Faculty of Health Sciences Research Ethics Committee, University of Pretoria

The Faculty of Health Sciences Research Ethics Committee complies with the SA National Act 61 of 2003 as it pertains to health research and the United States Code of Federal Regulations Title 45 and 46. This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki, the South African Medical Research Council Guidelines as well as the Guidelines for Ethical Research: Principles Structures and Processes, Second Edition 2015 (Department of Health)

Research Ethics Committee
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Tel +27 (0)12 356 3084
Email: deepeka.behari@up.ac.za
www.up.ac.za

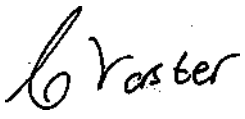
Fakulteit Gesondheidswetenskappe
Lefapha la Disaense tša Maphelo

ANNEXURE F: Declaration from the editor

DECLARATION

I, C Vorster (ID: 710924 0034 084), Language editor and Translator and member of the South African Translators' Institute (SATI member number 1003172), herewith declare that I did the language editing of a dissertation, written by Ms EO Mhlongo (student number 26441162) from the University of Pretoria.

Title of the dissertation: Perceptions of registered nurses regarding nurse-nurse communication during bedside clinical handover in a private hospital in Mpumalanga Province



20 January 2020

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C Vorster Date