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Nursing staff perceptions regarding the clinical audit tool used for relicensing inspections within eThekwini private hospitals in South Africa

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Abstract

Purpose – The purpose of this paper is to assess nursing staff perceptions regarding the clinical audit tool used for relicensing inspections within private hospitals in eThekwini district.
Design/methodology/approach – An exploratory sequential mixed method research design was used with a qualitative first phase involving a total population of 40 nurse managers through purposive sampling. Nurse managers ($n = 24$) were interviewed. This was followed by a quantitative phase in which a structured questionnaire was administered to nurses ($n = 270$) who were randomly sampled for the study from ($n = 4$) hospitals. Documentation review, a third phase was used to corroborate the findings of the first two phases of the study.
Findings – The results of the study showed that the participants perceptions of the selected private hospitals in eThekwini district is that they have not fully implemented the approach to practice standards and healthcare audits in relation to three clinical domains of the National Core Standards and the Batho Pele principles. These findings were significant and denoted the need for a standardised clinical audit tool for private hospitals in eThekwini district.
Research limitations/implications – This study was confined to an independent group of hospitals and the findings may not be suitable for generalising across all private hospitals in eThekwini district.
Originality/value – These findings led to the development of a clinical audit tool with measurements representing elements of care that are critical to the provision of safe, quality health care services.

Keywords Best practices, Support services, Audit tool, Patient care, Patients rights, Relicensing inspections
Paper type Research paper

Introduction and background

Quality and patient safety in healthcare is a worldwide phenomenon. Patient safety became a topic of interest for research since the landmark Institute of Medicine Report "To Err is Human: Building a Safer Health System" was published in 1999 in the USA. It was the first report to discuss quality and patient safety in a comprehensive way. (Institute of Medicine, 1999). South Africa is confronted with a quadruple burden of disease because of HIV and AIDS and TB; high maternal neonatal and child morbidity and mortality; rising disease burden of non-communicable disease; and high levels of violence and trauma (Republic of South Africa, Department of Health, 2017b). Although South Africa spends more per capita on health than any other African country, 8.7 per cent of its gross domestic product (World Bank, 2008), it is one of only 12 countries in the world where child mortality has increased since the millennium development goals baseline was set in 1990 (Bradshaw *et al.*, 2008). In the Fourth Report on Confidential Enquiries into Maternal Deaths in South Africa the assessors noted that 38 per cent of the maternal deaths that occurred within the health-care system were avoidable. Most occurred as a direct result of failures in obstetric care such as

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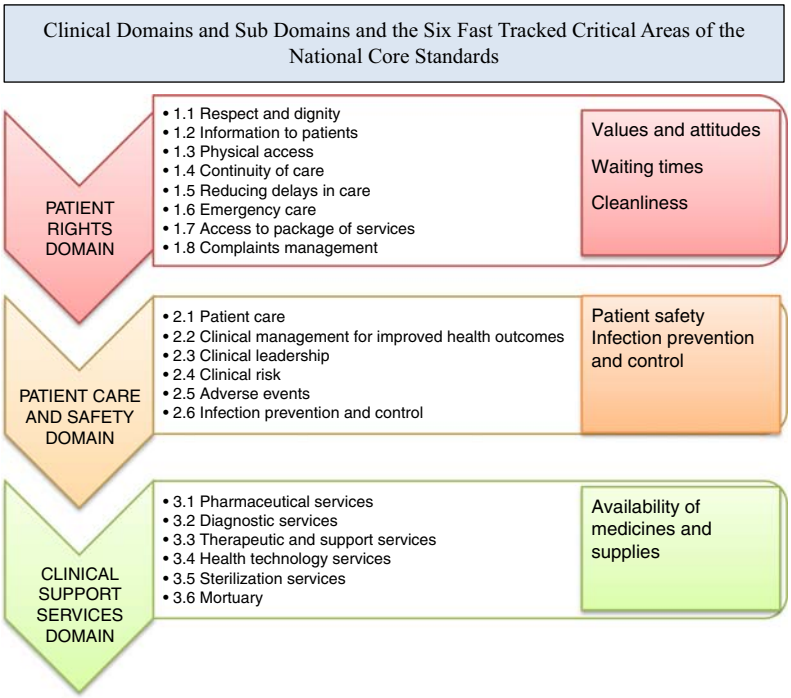
management of postpartum haemorrhage, complications of hypertension and sepsis (Chopra *et al.*, 2009). The World Health Organisation (WHO, 2010) recommends audit and feedback as a summary of clinical performance of health care over a specified period of time aimed at providing information to health professionals to allow them to assess and adjust their performance. Audit and feedback are intended to enhance professional performance and thereby improve the quality of health care and patient safety. Private hospitals play a significant role in the South African health care system. The changing preferences of the medical scheme population have influenced a significant shift from utilisation of public hospitals to private hospitals since 1990 (Matsebula and Willie, 2007). Nurses in the private sector are expected to show a high level of empathy and assurance in the quality dimension that will impact a customer's loyalty and cumulative satisfaction of the service (Boshoff and Gray, 2004). However, there has not been a standardised system or legislative requirement for private hospitals to submit information on clinical outcomes (Matsebula and Willie, 2007). Implementation of quality and patient safety initiatives have thus been left to the discretion of each hospital. Some private hospitals elect to participate in the Council for Health Services Accreditation of Southern Africa programme. Other private hospital groups in eThekwini district have undergone the International Standards Organization quality accreditation.

In recent years there has been a renewed focus on quality assurance and improvement in South Africa, which has included a revised set of National Core Standards (NCS) and the identification of six critical areas for fast-tracking of the attainment of quality standards across all facilities (Figure 1). The Office of Health Standards Compliance is the custodian of the national quality standards which are based on existing policy



Source: Republic of South Africa, Department of Health (2011)

Figure 1.
Structure of the NCS clinical domains and sub-domains reflecting the six critical areas

environment and tailored to South Africa's healthcare context, while also reflecting international best practice (Republic of South Africa, Department of Health, 2017a). The purpose of the NCS has been to develop a common definition of quality care which should be found in all health establishments in South Africa (Republic of South Africa, Department of Health, 2011). The White Paper on Batho Pele transformational principles sought to address two issues: putting people first, and viewing the recipients of services as customers. It is a policy framework that consists of 11 service delivery principles that are deemed to represent an appropriate approach to address service delivery challenges (Republic of South Africa, Department of Public Service and Administration, 1997). Detailed tools for measuring compliance with the NCS and Batho Pele principles have been developed and health establishments in the public sector have begun to self-evaluate using these tools.

An overview of the role played by audit tools

To date and since its implementation in the public sector, very little is known about the national audit tool and the method used to evaluate quality and patient safety standards in private hospitals in eThekwini district. While the structural audit tool using R158 is known to the private sector, no such tool exists for the measurement of clinical practice standards for private hospitals in eThekwini district (Republic of South Africa, Department of Health, 1996). According to the World Health Organization, the implementation of regulatory audit and feedback requires clear goals and a thorough analysis of the health care environment in question, especially if this approach is combined with incentives or penalties or is made mandatory (World Health Organization, 2010). Literature reviewed suggested that there are gaps between public and private sector regulatory relicensing inspections in eThekwini district (Republic of South Africa, Department of Health, 2012; Kabane, 2013). The subject of quality, patient safety, hospital performance measurements and assessments are wide, with multiple approaches. Therefore, although the agreement about the need for quality improvement is almost universal, the means of achieving effective improvement in overall care is still not well understood (Glickman *et al.*, 2007). What is also clear is that regulators are more likely to succeed by using mechanisms that are responsive to the context, conduct and culture of those being regulated (Braithwaite *et al.*, 2005). The fact that there is very little published research on relicensing inspections on patient safety and health care quality in South Africa motivated the researcher to undertake this study in order to contribute new knowledge to this very important area of health care systems. This study aimed to develop a clinical audit tool to bring about a shared meaning of quality and patient safety as well as adherence to the national quality standards of the NCS and Batho Pele principles in South Africa. Hence there was a need to analyse the perceptions of nursing staff that are critical to providing safe quality care, before a clinical audit tool was developed.

Research methodology

Study setting

The research setting was a group of four private hospitals situated in the eThekwini district. The group comprises 650 beds with average bed occupancy of about 80 per cent. It has 17 operating theatres and 60 adult Intensive Care Unit and 20 Neonatal Intensive Care beds. The group has an average intake of 5,700 inpatients and 2,000 outpatient visits per month. The clinical governance of the hospital is supported by a well-established Quality System, Health and Safety Committee, Infection Control Committee, Pharmaco-therapeutics Committee and an Ethics Committee. The hospitals are regulated by the eThekwini Department of Health and seek relicensing on an annual basis.

Study design

The researcher employed an exploratory sequential mixed methods research design (QUAL→QUAN) to assess elements from both the qualitative and quantitative paradigms, to produce findings in the context of a complex research question as illustrated in Figure 2.

In the first phase, the qualitative design, allowed the nurse managers to express their views in their own words and share their experiences of the current relicensing inspections as they are directly involved in regulatory relicensing process, using face-to-face interviews with an interview guide. The data were then analysed and the information was used to develop a structured questionnaire for the second quantitative phase (Creswell, 2014). A, third phase of documentation review using a checklist, followed the quantitative phase of the study and was used to corroborate and augment evidence from information gathered during the qualitative and quantitative phases, to identify how policies, protocols and checklists related to the NCS and the Batho Pele principles.

Sampling and sampling technique

The study was multiphase and therefore utilised a purposive sample strategy in the qualitative phase and simple random sampling in the quantitative phase. The selected group of hospitals has 40 clinical managers who were included in the qualitative phase of the study as they are directly involved in relicensing inspections. The participants ($n = 24$) were interviewed face-to-face guided by data saturation. The quantitative phase included nursing staff in direct contact with the patients. The total population of nurses was 569 of which ($n = 270$) were sampled for the study, from each of the hospitals in the study. Exclusion criteria included agency staff, nurses that were not registered with the South African Nursing Council, non-clinical staff and staff that were used for the pre-testing of data collection instruments.

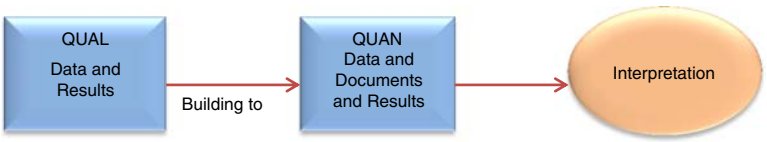
Pre-testing of the data collection tools

A pre-test was conducted before the commencement of the main study in order to establish reliability and validity of the data collection instruments. No changes were implemented in the data collection instruments.

Data collection process

Qualitative data collection: phase 1

Data collection explored the views of the senior nursing managers, using an interview guide supplemented with probing questions. The qualitative design was chosen in order allow the nurse managers to express their views in their own words and share their experiences of the current relicensing inspections as they are directly involved in regulatory relicensing process. The interview focussed on the standards of the first three clinical domains of the NCS and Batho Pele principles, that is, the Patient rights, Patient care and Support services domains. The time taken to complete the interviews was aimed at 30 minutes. The interviews were recorded and transcribed verbatim by the researcher with the permission of the participants. Probing questions were used to further clarify and to uncover answers. Data collection continued until the point of data saturation. All the interviews were conducted by the researcher during her visits to the four research sites.



Source: Adapted from Creswell (2014)

Figure 2.
Exploratory sequential design

Quantitative data collection: phase 2

The qualitative phase identified specific variables which were then used to build an instrument for the follow-up quantitative phase of the study. The intent of this strategy was to develop better measurements with specific samples of populations and to see if data from a few individuals gathered in a qualitative phase can be generalised to a large sample of a population in a quantitative phase (Creswell, 2014). The nursing staff were the participants in the quantitative phase of the study as they are the clinicians at the bedside of the patients. The quantitative design was chosen as an appropriate method for assessing the perceptions of the nursing staff with regards to their relicensing experience as they are the staff who actually performs the clinical duties. The questionnaires on average took about 20 minutes to complete.

Documentation review: phase 3

Secondary data were derived from documents such as the organisational specific policies and procedures using a checklist. The checklist represented the data to which participants had given attention to during the qualitative and quantitative phases of the study (Creswell, 2014). The documentation review further enabled the researcher to link the concepts raised in the first two phases to the conceptual framework under study. The NCS (Republic of South Africa, Department of Health, 2011) and Batho Pele principles (Republic of South Africa, Department of Public Service and Administration, 1997) are two of the documents on which the documentation review was based and offered guidance on the policies and procedures required to provide quality and safe patient care.

Data analysis

Qualitative data analysis

The qualitative and quantitative data analysis aimed to achieve the objective of the study which was to assess nursing staff perceptions regarding the clinical audit tool used for relicensing inspections within private hospitals in eThekwini district. The approach adopted for qualitative data analysis was an inductive approach. After each interview, the researcher reviewed how participant responses compared to the research question and to the conceptual framework of the NCS and the Batho Pele principles. The researcher personally transcribed each interview within 48 hours of conducting the interview. Information from the field notes was compared to that on the audiotape to make sure that all data had been captured correctly. The researcher focussed on describing how many times different concepts appeared in the data and linked them to codes to create meaning. Important quotations from the participants' responses were identified. The concepts were translated into codes, codes into themes and categories. The themes according to which data were organised were predetermined according to the conceptual framework that guided the study. The major themes that emerged from the data analysis were related to inadequate checking of the Patient Rights, Patient Care and Clinical Support services domains during relicensing inspections. Participants also noted the lack of consistency in the audits with each visit and expressed the need for an audit tool to guide the audit process. The findings of this phase contributed richly to the development of a quantitative survey tool through validating existing theory and by providing a thick description of the research findings (Zhang and Wildemuth, 2010).

Quantitative data analysis

The researcher used the SPSS version 24.0 for data analysis. The following tests were used in the analysis of the quantitative data; Descriptive statistics including means and standard deviations, where applicable frequencies were represented in tables or graphs;

χ^2 goodness-of-fit-test; a univariate test was used on a categorical variable to test whether any of the response options were selected significantly more/less often than that of the others. The number of participants in the quantitative phase was from four hospitals coded as Hospital A, B, C and D. A total of 270 questionnaires were distributed. The total number of questionnaires that were received and included in the data analysis and interpretation was a total of 234 from all four hospitals. The results of the study showed that 38.9 per cent ($n = 91$) were from Hospital A, 32.9 per cent ($n = 77$) were from Hospital B, 18.8 per cent ($n = 44$) were from Hospital C and 9.4 per cent ($n = 22$) were from Hospital D with an overall return rate of 86.66 per cent.

Documentary data analysis

A total of 59 documents in the form of policy, procedures and protocols were reviewed from each hospital, totalling 236 documents between the four hospitals. Quantitative content analysis was used to analyse the documentation using a deductive approach. The goal was to identify important themes or categories within the content of the documents that related to quality and patient safety and to the clinical domains of the NCS and the Batho Pele principles as identified by the participants.

Ethical considerations

The researcher obtained full institutional ethics clearance before proceeding with the study. Informed consent was obtained from all the participants and participation was voluntary. anonymity and confidentiality was maintained throughout the study. Participants were informed that they could withdraw from the study at any time should they so wish. Although there were no unforeseen risks anticipated in this study, participants were informed that the interviews and survey could not be traced back to them. The participants were also informed that the data would be confidential, that the questionnaires and interview guides would not be used to identify individuals.

Trustworthiness and rigour

In the qualitative phase the techniques to ensure trustworthiness followed Lincoln and Guba's recommendations (1985 cited in Loh, 2013), using the criteria of credibility, dependability, confirmability and generalizability. The researcher ensured credibility of data by recording all the interviews with the study participants and using their direct quotations and narratives during data reporting. Credibility was also ensured by making sure that data from the record reviews were taken as is and the researcher remained as neutral as possible during the interviews so as to ensure that the researcher did not influence the responses by the participants. The researcher spent sufficient time with the participants during the data collection stage, which increased the level of trust between the researcher and the participants. Informal member checking was conducted during the interviews through clarification with the participants. This was achieved through the researcher summarising and re-stating the group's findings during the interview. Findings were confirmed with a group of participants after the final coding of themes to verify the truth of findings. The researcher used these techniques to ensure a rich, robust, and comprehensive account of the data were collected during the study. Dependability is reliant on credibility. The reliability of the data collected during the qualitative phase was ensured through triangulation of the data methods, in which the researcher overlapped the different data methods to ensure trustworthiness. A confirmability audit trail was conducted to confirm findings, interpretations and recommendations supported by data. Independent data coding was done by the researcher. The researcher's interpretations were scrutinised by the research supervisor who acted as an independent coder.

Consensus was reached after discussion about the emerging themes. Data were collected and analysed in sufficient detail to provide a baseline understanding for subsequent work to be undertaken, and for comparison with other similar studies, and for generalising to the larger population. The research rigour in the quantitative phase of the study was ensured through validity and reliability of the methods used for data collection and data analysis. The validity of the research instrument means to measure the truth or accuracy of scientific findings. In this study, the questionnaire was validated by face, content, construct and criterion validity. The participants were sampled appropriately to accurately represent the total study population using purposive sampling in order for the results to be generalizable. The researcher conducted a pre-test on a neutral population with the same characteristics as the study population in order to assess the instrument and make amendments if necessary. The researcher consulted with the supervisors who ensured that the variables and concepts under study were properly operationalised. The researcher also consulted with fellow nursing managers of other private groups and nursing experts in the field of quality management. Input from the statistician was sought to determine whether the construct validity was appropriate for statistical purposes.

Findings of the study

Phase 1: qualitative results

A total of 24 participants were interviewed; ($n = 9$) Hospital A ($n = 7$) Hospital B ($n = 5$) Hospital C and ($n = 3$) Hospital D. The people in the study were senior nursing managers of which 23 were females and one was a male nursing manager. The experience levels measured the years of service in the nursing profession and ranged as follows: ($n = 3$), 5–10 years of experience ($n = 8$) 11–20 years ($n = 7$) 21–30 years and ($n = 6$) above 30 years. The researcher included participants across all specialisation in this study. There were three major themes and a number of sub-themes that emerged during the qualitative data analysis as seen in Table I.

Major theme 1: inadequate checking of the Patient Rights domain during relicensing inspection

Three sub-themes emerged under this major theme during the interview (Table I). The participants expressed their unconscious prejudices towards the current relicensing process based on their interpretation of the NCS and Batho Pele principles as well as shared their own personal experiences as a yardstick for relicensing inspection regarding

	Themes and sub-themes
Theme 1	*Inadequate checking of the Patient Rights domain during relicensing inspection*
Sub-theme 1.1	Inconsistent checking of the Patient's Right domain during relicensing inspection
Sub-theme 1.2	Lack of an audit tool for clinical audits during relicensing inspections
Sub-theme 1.3	Recommendations for a standardised tool for clinical audits
Theme 2	*Inadequate checking of the patient care domain during relicensing inspection*
Sub-theme 2.1	Inconsistent checking of evidence-based patient care practices during relicensing inspection
Sub-theme 2.2	Inconsistent checking of clinical management during relicensing inspection
Sub-theme 2.3	Inconsistent checking of aspects of clinical leadership during relicensing inspection
Sub-theme 2.4	Inconsistent checking of clinical risk monitors during relicensing inspection
Sub-theme 2.5	Inconsistent checking of adverse events and monitoring systems during relicensing inspection
Sub-theme 2.6	Inconsistent checking of infection prevention and control during relicensing inspection
Theme 3	*Inadequate checking of the clinical support services domain during relicensing inspection*
Sub-theme 3.1	Inconsistent checking of clinical support services during relicensing inspection

Table I.
Themes and sub-themes

the Patient Rights domain. There were also mixed responses and excerpts here included: "The audit is based on the R158 […] very little to do with clinical […] and infection control. More focused on bed spacing […] structure […] It is relevant to infection control. I agree it is interrelated but they do not look at respect and dignity" (Participant 3, Hospital C). "Honestly […] inspections are very generic inspections […] they should firstly have an audit tool to give us guidance. There is no checklists as well […] not done completely with regards to […] respect and dignity […] this is not being checked. It would be nice to have a tool […] benchmarking will really work well for each hospital" (Participant 3, Hospital B).

Major theme 2: inadequate checking of the Patient Care domain during relicensing inspection

Six sub-themes emerged under this major theme during the interview (Table I). There were mixed responses to this question. Many participants expressed sentiments regarding the evidence-based practices known to them. Excerpts from participants included: "My ward is an infectious unit […] the only thing they checked was the dispensers […] They should check the sputum room, policies, smoke tests done […] check our isolation wards for negative pressure, check the hygrometers on the wall […] my infectious policies […] should question about MDR (Multiple Drug Resistance) patients curtain washing plan […] how we soak our dishes […] how we isolate our patients, our PPE's and our staff medicals. There was not a single question regarding infection control" (Participant 5, Hospital A). "Yes, they look at this at unit level […] they look at negative pressure. Not all isolation rooms are checked […] They should have an audit tool […] based on the tool they should check PTB's (Pulmonary Tuberculosis) […] if screened […] isolated and management of MDR and XDR (Extreme Drug Resistance) patients" (Participant 3, Hospital B).

Major theme 3: inadequate checking of the Clinical Support Services domain during relicensing inspection

One sub-theme emerged under this major theme; there is inconsistent checking of Clinical Support Services during relicensing inspection. There were also mixed responses from participants. Excerpts here included: "Diagnostic Services […] no […] I have not seen this. They don't check and audit blood gas machines and critical equipment checks are not audited" (Participant 3, Hospital A). "Yes, they did check my ventilators, they checked my last service date on my ventilator .They even checked my certification of services […] my yearly certification of services whether they done and concurrent and then I had to submit a critical care register to annotate the next service date" (Participant 7, Hospital A).

Phase 2: quantitative results

Data were analysed in two forms. The first analysis included a composite analysis of the entire data set to assess how the four hospitals as a whole performed in relation to the objective of the study, broadly understood by participants as assessment by the auditors. Second comparisons were made between the four hospitals. The overall results of the study showed that there were 35 per cent ($n = 82$) professional nurses, 44 per cent ($n = 103$) enrolled nurses and 20.9 per cent ($n = 49$) enrolled nursing assistants across all four hospitals. The results of the study showed that the experience levels of the participants at their hospital ranged between 1 and 20 years. The number of participants with experience of less than one year was 8.5 per cent ($n = 20$), between 1 and 5 years 51.7 per cent ($n = 121$), between 6 and 10 years 25.2 per cent ($n = 59$), between 11 and 15 years 7.7 per cent ($n = 18$), between 16 and 20 years 2.6 per cent ($n = 6$) and more than 20 years 4.3 per cent ($n = 10$).

Assessment of the patient rights domain

The assessment of the patient's right domain received both positive and negative responses. The following mean total responses were received for the various standards within the sub-domains across all four hospitals coded as Patient Rights (PR1-8). For respect and dignity, the mean score was 4.20 ($n = 233$), information to patients 3.36 ($n = 231$), physical access 4.33 ($n = 231$), continuity of care 3.25 ($n = 233$), reducing delays in care 3.31 ($n = 231$), emergency care 3.31 ($n = 232$), access to packages of service 4.16 ($n = 232$) and complaints management 4.19 ($n = 232$).

Validity and reliability score for assessment of the patient rights domain

Cronbach's α was applied to each factor to ensure reliability. An α score of > 0.7 indicated a reliable score. For Factor 1, Cronbach's α measured 0.944 and for Factor 2, Cronbach's α measured 0.921. There was significant disagreement for Factor 1 items ($M = 3.4948$, SD = 1.92229), t (233) = −4.020, $p < 0.0005$ and significant agreement for Factor 2 items ($M = 4.2286$, SD = 1.98914), t (233) = 1.758, $p = 0.080$ as illustrated in Table II.

Assessment of the patient care, patient safety and clinical governance domains

There were 25 questions related to this domain which elicited both positive and negative responses in regards to assessment done by the auditors in relation to this domain. The following total mean responses were received for the various standards within the Patient Care sub-domain across all four hospitals, coded as Patient Care (PC 1-25). For Morse falls risk assessment tool for prevention of patient falls the mean was 3.75 ($n = 234$), Waterloo risk assessment tool for the prevention of pressure sores 3.76 ($n = 233$), IV cannulation bundle practice for the prevention of phlebitis 3.71 ($n = 234$), hang-times for antibiotics 3.76 ($n = 234$), chlorhexidine prewash before surgery 3.55 ($n = 234$), bundle practice for the prevention of SSI 3.65 ($n = 233$), bundle practice for the prevention of ventilator acquired pneumonia 3.57 ($n = 234$), bundle practice for the prevention of catheter associated UTI 3.60 ($n = 234$), and bundle practice for the prevention of central line arterial bloodstream infection 3.53 ($n = 234$).

Observation of the Rs5 of medication administration 3.79 ($n = 234$), observation of the six international patient safety goals 4.26 ($n = 234$), change of shift report using situation, background, assessment and recommendation 3.49 ($n = 234$), adequate care in the handling of sharps 3.79 ($n = 233$), proper care in the handling of medical waste 3.91 ($n = 234$), maintenance of standard precautions to prevent cross infection 4.41 ($n = 234$), consistent

Table II.
Factor analysis: assessment patient rights domain

Pattern matrix		
Assessment Patients right domain	Factor	
	1	2
	Cronbach's α 0.944	Cronbach's α 0.921
	5 items	3 items
4. Giving patients' information regarding referrals and specialist appointments	0.917	
2. Giving information to the patients regarding their treatment	0.897	
6. Treating and stabilising emergency patients before transfer if needed	0.813	
5. Managing waiting times for patients in order to improve patient satisfaction and care	0.740	
1. Treating patients with respect and dignity	0.698	
8. Having a Complaints Management Policy in place		0.986
7. Providing services that meet the national guidelines for hospitals		0.836
3. Ensuring safe access for the disabled		0.673

application of hand hygiene principles 4.54 ($n = 234$), daily monitoring of environmental risks 4.37 ($n = 234$), safe administration of blood and blood products 3.45 ($n = 233$), timeous reporting of adverse events 3.61 ($n = 233$), following the time-out process for all invasive and surgical procedures 3.48 ($n = 233$), adherence to inter-hospital and inter-departmental transfers processes 3.44 ($n = 234$), understanding your job description 4.65 ($n = 234$), participation in induction and orientation programmes 4.41 ($n = 233$), participation in ward in-service training programmes 4.36 ($n = 234$), and knowledge of unit policies and procedures 4.56 ($n = 234$).

Validity and reliability score for assessment of patient care domain

Cronbach's α was applied to each factor to ensure reliability. An α score of > 0.7 indicates a reliable score. Cronbach's α for Factor 1 measured 0.991 and for Factor 2 measured 0.973. There was significant disagreement to assessment of patient care Factor 1 ($M = 3.6387$, SD = 2.04107), t (233) = −2.708, $p = 0.007$ and significant agreement to assessment of patient care Factor 2 ($M = 4.4709$, SD = 1.98305), t (233) = 3.632, $p < 0.0005$ as illustrated in Table III.

Assessment of the clinical support services domain

There were seven questions related to this domain which elicited both positive and negative responses in regards to assessment done by the auditors in relation to this domain. The following total mean responses were received for the various standards within the clinical support services sub-domain across all four hospitals, coded as Support Services (SS 1-7).

Assessment patient care domain Pattern matrix	Factor 1 Cronbach's α 0.991 17 Items	 2 Cronbach's α 0.973 7 items
7. Bundle practice for the prevention of ventilator acquired pneumonia	0.964	
8. Bundle practice for the prevention of catheter associated UTI	0.951	
6. Bundle practice for prevention of SSI	0.951	
9. Bundle practice for the prevention of central line arterial blood stream infection	0.948	
4. Hang-times for antibiotics	0.921	
5. Chlorohexidine prewash before surgery	0.918	
12. Change of shift report using situation, background, assessment and recommendation	0.912	
18. Safe administration of blood and blood products	0.909	
3. IV cannulation bundle practice for the prevention of phlebitis	0.907	
20. Following of the time-out process for all invasive and surgical procedures	0.904	
10. Observation of the Rs5 of medication administration	0.903	
21. Adherence to inter-hospital and inter-departmental transfer processes	0.902	
13. Adequate care and handling of sharps	0.875	
2. The Waterloo risk assessment tool for the prevention of pressure sores	0.857	
14. Proper care and management of medical waste	0.849	
1. Morse Falls risk assessment for the prevention of falls	0.844	
19. Timeous reporting of adverse events	0.831	
25. Knowledge of unit policies and procedures		0.973
23. Participation in induction and orientation programmes		0.945
24. Participation in ward in-service training programmes		0.943
22. Understanding of your job descriptions		0.941
17. Daily monitoring of environmental risks		0.849
16. Consistent application of hand hygiene principles		0.838
15. Maintenance of standard precautions to prevent cross infection		0.634

Table III.
Factor analysis: assessment of patient care domain

For checking of the pharmacy related issues in the unit, the mean score was 3.21 ($n = 234$), checking of diagnostic services in the unit 3.41 ($n = 233$), checking of health technology services in the unit 3.47 ($n = 234$), checking of sterilisation services in the unit 3.43 ($n = 233$), checking of mortuary services in the unit 2.87 ($n = 225$), checking of efficiency management services in the unit 4.20 ($n = 234$), checking of therapeutic and support services in the unit 3.59 ($n = 233$).

Validity and reliability score for assessment of clinical support services domain

Cronbach's α was applied to each factor to ensure reliability. An α score of > 0.7 indicates a reliable score. Cronbach's α for Factor 1 measured 0.961. There was significant disagreement to the assessment of support services by the auditors ($M = 3.4585$, SD = 1.83273), $t\ (233) = -4.520$, $p < 0.0005$ as illustrated in Table IV.

Findings from assessment of quality of patient care

A *t*-test was applied to test if the average score is different from 3. Participants responses when asked to rate their units on the quality of patient care. The results of the study showed that participants who responded held a high opinion of the quality of patient care in their units ($M = 4.40$, SD = 0.742), $t\ (232) = 28.766$, $p < 0.0005$.

Findings from assessment of the reporting structure

A χ^2 goodness-of-fit test was applied to test if any of the options is selected significantly more than the others. The results of the study showed that a significant number indicated that they reported a corrected mistake most of the time (57, 24.4 per cent) or always (134, 57.3 per cent), $\chi^2\ (4) = 243.302$, $p < 0.0005$.

Findings from assessment of incident reporting

A χ^2 goodness-of-fit test was applied to test if any of the options is selected significantly more than the others. The results of the study showed that participants reported the following number of incidents in the past 12 months, none ($n = 85$, 36.3 per cent), 1–2 ($n = 84$, 35.9 per cent), 3–5 ($n = 29$, 12.4 per cent), 6–10 ($n = 12$, 5.1 per cent) > 10 ($n = 20$, 8.5 per cent), $\chi^2\ (4) = 110.565$, $p < 0.0005$.

Comparisons between the four hospitals

The construct measures for the assessment by the auditors and the assessment of Best Practices was compared for the four hospitals using the Krusal Wallis Test. The results of the study showed that all of the measures differed significantly across hospitals

Table IV.
Factor analysis: for assessment of the clinical support services domain

Assessment support services domain	Factor matrix Factor 1 Cronbach's α 0.961 7 items
3. The checking of health technology services in the unit	0.963
2. The checking of diagnostic services in the unit	0.961
4. The checking of sterilisation services in the unit	0.930
1. The checking of pharmacy related issues in the unit	0.926
7. The checking of therapeutic and support services in the unit	0.916
5. The checking of mortuary services in the unit	0.817
6. The checking of efficiency management services in the unit	0.682

Assessment by the auditors: patient rights domain (PRF1)
The results of the study showed that there was a significant difference in the opinions of the assessment of the Patient Rights domain across hospitals, χ^2 (3) = 81.840, $p < 0.0005$. There is agreement that more assessment across this domain was done at Hospital C and Hospital D compared to Hospital A and Hospital B and more at Hospital C compared to Hospital D.

Assessment by the auditors: patient rights domain (PRF2)
The results of the study showed that there was a significant difference in the opinions of the assessment of the Patient Rights domain across hospitals, χ^2 (3) = 83.287, $p < 0.0005$. There is agreement that more assessment across this domain was done at Hospital A and Hospital C compared to Hospital B and Hospital D and more at Hospital C compared to Hospital A.

Assessment by the auditors: patient care domain (PCF1)
The results of the study showed that there was a significant difference in the opinions of the assessment of the Patient Care domain across hospitals, χ^2 (3) = 85.482, $p < 0.0005$. There is agreement that more assessment across this domain was done at Hospital C and Hospital D compared to Hospital A and Hospital B and more at Hospital C compared to Hospital D.

Assessment by the auditors: patients care domain (PCF2)
The results of the study showed that there was a significant difference in the opinions of the assessment of the Patient Care domain across hospitals, χ^2 (3) = 96.113, $p < 0.0005$. There is agreement that more assessment across this domain was done at Hospital A and Hospital C compared to Hospital D and Hospital B and more at Hospital A compared to Hospital C.

Assessment by the auditors: clinical support services domain (SSF1)
The results of the study showed that there was a significant difference in the opinions of the assessment of the Clinical Support Services domain across hospitals, χ^2 (3) = 71.005, $p < 0.0005$. There is agreement that more assessment across this domain was done at Hospital A and Hospital C compared to Hospital B and Hospital D and more at Hospital C compared to Hospital A.

Scoring of the unit on the quality of patient care
The results of the study showed that there was a significant difference in the opinions of the assessment of quality of patient care across hospitals, χ^2 (3) = 42.836, $p < 0.0005$. There is more agreement amongst staff that there are differences in the quality of care at Hospital B and Hospital D compared to Hospital A and Hospital C.

Phase 3: results documentation review
The results of 59 documents reviewed at each hospital related to quality and patient safety. The majority of the documents were written specifically for information of the nursing workforce; however, some addressed issues related to all employees in the organisation. While some documents addressed a specific topic, for example, the management of sentinel events, nursing education, infection control, triage policy, other documents were common to all employees. These included employee occupational health and safety, hand hygiene policy, needle stick injury policy and other policies which incorporated a variety of patient-staff-centred standards which contributes to quality and patient safety. All of these documents were expressed in the English language. The findings from the documentation review corroborated the findings of both phases of the study and provided a rich description of the social reality created by those themes/categories as related to the NCS and the Batho Pele principles.

Discussion

The overall results of the Patient Rights, Patient Care and Support Services domain showed that the findings from the quantitative phase validated the findings of the qualitative phase in which the main themes were that there is inadequate and inconsistent checking of the clinical domains by the auditors during relicensing inspection. The structural audit tool (Republic of South Africa, Department of Health, 1996) requires safe minimum standards of structural compliance and prescribes patient safety as necessary. However, auditors routinely include clinical audits without measurement criteria in the R158 structural audit relicensing inspections. These participants described as fear of the unknown during relicensing inspections, contributing to a lack of confidence among senior managers. Ineffective communication, ineffective feedback and the lack of experience of managers with clinical relicensing inspections further contributed to the feeling of uncertainty amongst senior management staff that have to endure the anticipation of failure or success related to an annual relicensing inspection. The results of the study also showed that in both phases of the study little reference was made to policy and procedures in relation to the NCS and Batho Pele Principles by the auditors. The quantitative results showed significant agreements by the nursing staff that best practice policies and procedures existed in their hospitals relating to the Patient Rights, Patient Care and Support Services domains. Documentation review further validated the existence of policy and procedures relating to the three clinical domains of the NCS and Batho Pele principles. The recommendations from the participants in both the qualitative and quantitative strands of the study also corroborated the findings, in which participants argued that a standardised audit tool is required for relicensing inspection. The nurses' experience of the NCS and Batho Pele principles during the annual relicensing inspections was found to be very limited. To illustrate, in the qualitative phase of the study, senior management staff who actually prepare and undertake the current clinical relicensing audits agreed that the NCS clinical domains are not the focus of the audit and are inadequately checked during relicensing inspections. These findings were validated in the quantitative phase of the study by the nursing staff in the clinical departments who render direct patient care. However, notably the eThekwini district private hospitals in the study are not the only private hospitals in this situation. Similar situations have been reported in other healthcare organisations in eThekwini district where the NCS quality model is not fully implemented. It has been further reported that implementing the NCS throughout every healthcare establishment in South Africa will take time and effort (Republic of South Africa, Department of Health, 2011). In Europe, a survey result reported that public institutions are inspected to verify continued compliance with legal requirements before they are relicensed. However in the same survey half the responding countries reported that licences for radiation safety were issued once only and were not subjected to renewal or re-inspection. It was also noted that many countries lack sufficient inspectors to verify that institutions continue to meet legal requirements (Shaw *et al.*, 2010). To fast track and focus management's efforts on quality and patient safety, six quality priority areas were identified for the first phase of implementation of the NCS in South Africa (Whittaker *et al.*, 2011). These are considered the six most critical areas for patient-centred care (Figure 1) and are based on the Constitution of South Africa, the Batho Pele principles, the Patient Rights Charter and the NCS and are in accordance with the National Service Delivery Agreement (NSDA) (Whittaker *et al.*, 2011).

In South Africa, the National Health Insurance (NHI) aims to provide access to quality health services for all South Africans. The introduction of the NSDA in October 2010 with its focus on primary healthcare, re-engineering, and NHI as a means to obtain universal health coverage, re-emphasised high level governmental commitment to improving quality. The NHI will accredit and contract eligible health facilities that meet nationally

approved standards both in the public and private sector (Republic of South Africa, Department of Health, 2017b). Chellan and Sibiya (2017) in their study reported that it is imperative for private sector hospitals to be included in the preparations for NHI and further emphasised the need for a common audit tool for national level audits for both the private and public sector hospitals based on the NCS and the Batho Pele principles. Clinical audits in the form of inspections or accreditation are beneficial to the organisation and studies have reported increased patient and staff satisfaction in areas such as waiting times and customer satisfaction levels at some accredited hospitals (Al Tehewy *et al.*, 2009).

Audit and feedback are intended to enhance professional performance and thereby improve the quality of healthcare and patient safety (Flottorp *et al.*, 2010). The audit tool, namely, R158, is used annually to ensure structural compliance; however it is a poor indicator of actual clinical performance of the service providers or hospital performance as an institution (Chellan and Sibiya, 2017). A standardised assessment tool such as the NCS in South Africa used for clinical audits in the public sector produces reports on compliance with standards and a percentage score per domain, sub-domain or standard. In addition, the highest risk areas are also reported separately, to highlight the need for immediate corrective action to avoid potential catastrophic events (Republic of South Africa, Department of Health, 2011). The results of the study have shown that this has not been the practice in the private sector regulatory relicensing inspections. Participants expressed their views on having auditable standards during relicensing inspections with constructive feedback and the ability to benchmark with other hospitals in the eThekwini district.

The first three clinical domains of the NCS as related to the Batho Pele principles links directly to the core values and philosophy of a nurse, who pledge allegiance to the nursing profession (Chellan and Sibiya, 2017). The clinical domains of the NCS further incorporate aspects of the scope of practice of nurses in R2598 of the Nursing Act which relate to the scope of work of a nurse in which caring may be enhanced (Republic of South Africa, 2005). Improving the quality of healthcare today requires a commitment to delivering healthcare based on sound scientific evidence aimed at continuously introducing innovative, effective healthcare practices and preventative approaches (Hafner *et al.*, 2011). One of the most common ways of incorporating evidence-based research is to incorporate it into an organisation's policies and procedures (Pipe *et al.*, 2005).

Limitations of the study

This is a single site study within a specific group of hospitals in a specific geographical location. Therefore, findings may not be generalised across other private hospitals due to sampling bias.

Conclusion

The following conclusions based on the objective of the study were revealed.

Conclusion 1: there is inadequate checking of the clinical domains during relicensing inspections of the selected private hospitals in eThekwini district.

The results of the study concluded that, in relationship to the objective of the study, there is inadequate checking of the Patient Rights, Patient Care and Clinical Support Services domains during relicensing inspection of the selected private hospitals in eThekwini district. The results also concluded that there are many inconsistencies in checking of the standards relating to the sub-domains of the NCS and Batho Pele principles during relicensing inspections. Participants perceived the relicensing clinical audits as inconsistent with each visit as there is no clinical audit tool to guide the inspection process.

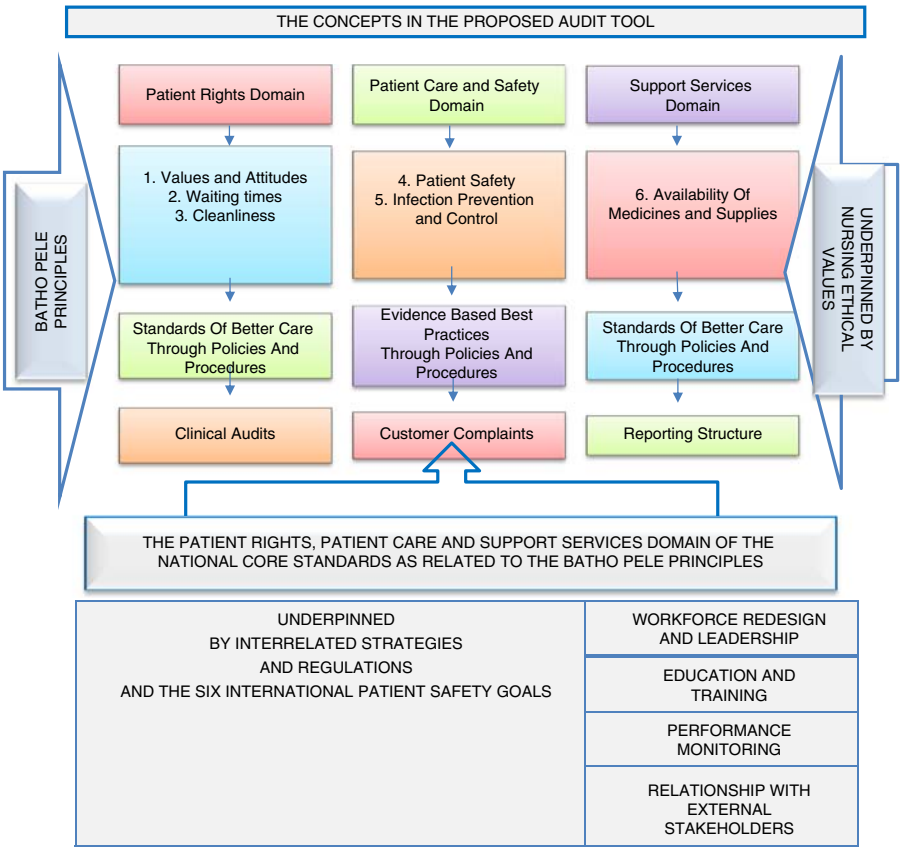
Conclusion 2: the findings also concluded that certain internal and external factors influenced the lack of confidence in nursing staff during relicensing inspections as illustrated in Table V.

Recommendations

The internal factor recommendations are intended to be resolved by senior management in the organisation through formal and informal training courses as illustrated in Table V. The external factor recommendations are proposed to be initiated by the National Health Department in South Africa thorough National quality forums, training and development of nurse managers who may assist with staff education on the shop floor. Learning maybe further enhanced through effective communication through road shows arranged by the regulator to keep all health establishments updated on the progress, failures and achievements, as success stories, in the implementation of the National Quality Standards as illustrated in Table V. Private hospitals in eThekwini district should also prepare and understand what needs to be done in preparation for NHI. This should entail comparing their current practices with the NCS and Batho Pele principles. The researcher further proposes actions on three fronts, namely: management responsibility, education and training, and operational to ensure that the three levels of hierarchy co-operate to put systems and processes into place to implement the National Quality Framework. Strategies for monitoring, evaluation and feedback are important and these should be in place at all levels. Communication between the three levels and with relevant stakeholders is important. More importantly, it is necessary to create a positive organisational culture and workforce that is committed to strengthening the national quality framework in the eThekwini district. It is recommended that future researchers on the topic engage in a broader study involving other private hospitals and groups in eThekwini district. Further research on the evaluation of the audit tool developed (Figure 3) is also highly recommended. The proposed audit tool could enhance the successful implementation of the NCS and Batho Pele principles in private hospitals in eThekwini hospital.

Factors contributing to the lack of confidence	Factors that could improve confidence
Internal factors	
Lack of management exposure to relicensing audits based on NCS and Batho Pele principles	Internal audit procedures must incorporate aspects of the three clinical domains
Ineffective communication between the teams	Improve communication through regular quality forums
Lack of timeous feedback regarding audits	Improve feedback to the managers and provide constructive criticisms
Inadequate preparations for audits	Encourage continuous quality improvement and readiness for audits at all times
Uncertainty of what is going to be checked.	Prepare for audits within the national audit guidelines.
Lack of experience of unit managers to conduct external audits	Accompaniment and mentorship incorporated into leadership programmes
External factors	
Lack of a standardised audit tool with benchmarks	Implement the National Audit tool for private sector relicensing inspections
Audit not based on the NCS and the Batho Pele principles	The NCS and Batho Pele principles framework of quality and patient safety to be applied to private sector hospitals
Lack of consistency within the audits	Provide standardised auditable checklists for clinical inspections to ensure consistency
Lack of timeous and objective feedback	Feedback in the form of a score rating identifying the high-risk areas while on site
Combined structural and clinical audits	Separate the R158 structural audit from the clinical audit
The approach and attitude of audit staff	Friendly attitude will put staff at ease
Not recognised as an educational opportunity	Use the process as an opportunity to educate staff at all levels

Table V.
Phase 1: conclusion 1: internal and external factors



Source: Adapted from Republic of South Africa Department of Health (2011)

Figure 3.
The concepts in the proposed audit tool

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