

Perspectives on Patient Safety Education in the Kenyan Preregistration Nursing Curriculum

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Abstract

Patient safety education is recognised as a key ingredient in the development of safety competencies in healthcare professionals. To ensure that patient safety is emphasised in the preregistration education, it is important that it be integrated explicitly in the curriculum. This study aimed at identifying explicit patient safety concepts in the Kenyan nursing curriculum and exploring the perspectives of the nursing faculty members and clinical nurses on the integration of patient safety in the curriculum. A qualitative content analysis was conducted on the relevant curriculum documents from two universities. In-depth, semi-structured interviews were conducted on a purposive sample of 13 staff members of the nursing faculty from the university and 14 clinical nurses from the hospitals where the students undergo clinical instruction. A thematic analysis was carried out on the transcribed interviews from which four themes and subthemes emerged. The curriculum content analysis did not identify any explicit patient safety content but the content was rather implicit within the curriculum as a series of statements and inferences to patient safety. The themes included curriculum issues, student characteristics, a patient safety culture, clinical education issues, and the academic-clinical relationship. To ensure training of a nurse who is competent in patient safety, the concepts must be integrated in the curriculum, the academic and clinical faculties need to be well equipped to teach and assess these concepts, the patient safety culture in clinical placement sites should be conducive to allow for learning about patient safety, and better collaboration between the academic and clinical settings for integration of patient safety in nursing education should be realised.

Keywords: patient safety; nursing education; preregistration; content analysis; curriculum



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Background

The safety of healthcare is an extremely important issue for healthcare professionals and individual consumers of healthcare, yet evidence indicates that healthcare is not as safe as it should be especially in the developing countries where it is estimated that the rates of adverse events may be double the global rates (Jha 2008, 13; WHO 2011a, 2). Nurses are recognised as vital members of the healthcare team in hospitals and their contribution is fundamental to the improvement of quality and maintenance of patient safety in hospitals. Compared to other healthcare professionals, nurses are more often likely to recognise, intercept, and correct errors in healthcare (Kohlbrenner, Whitelaw, and Cannaday 2011, 122). Historically, the major focus of patient safety initiatives was on the improvement of the safety practice of nurses during their post-registration period. However, it is becoming increasingly apparent that for the nurses to be competent in these safety practices more emphasis has to be placed on the acquisition of patient safety knowledge, application of that knowledge to practice, and the development of appropriate attitudes, and this can only be done through education (Henderson, Forrester, and Heel 2006).

Two main initiatives have been developed for the integration of patient safety in health professionals' education. In 2011, the WHO launched the Patient Safety Curriculum Guide for Multi-Health Professionals with the aim of encouraging health professionals' schools to include patient safety in their courses (WHO 2011b). The second initiative to incorporate has been through the Quality and Safety Education for Nurses (QSEN) framework which focuses on the challenge of preparing nurses with the competencies necessary to continuously improve the quality and safety of the healthcare systems in which they work. The framework outlines six competencies for the preregistration nursing students, namely patient-centred care, teamwork, collaboration, evidence-based practice, quality improvement, and safety and informatics (Cronenwett et al. 2007, 124).

Several studies conducted to assess the inclusion of patient safety concepts in the preregistration nursing curriculum have shown that patient safety concepts are not explicitly covered in the preregistration curriculum but rather they are implied within the curriculum and the student nurse is left to infer these concepts. According to Tella et al. (2014, 7), if patient safety is not evident in the nursing curriculum as an explicit concept there is a risk of it not being taught comprehensively. In the United Kingdom, a multisite study on the formal and informal ways preregistration students from four healthcare professions learn about patient safety showed that patient safety in the curriculum documents was not visible as a specific module or theme but as a series of statements about safety and was underpinned in all aspects of the nursing programmes (Cresswell et al. 2013, 843). In Iran, nursing students reported that they were dissatisfied with the way patient safety issues were covered in the classroom and they felt that the curriculum concentrated more on the medical aspects with little time being dedicated to patient safety issues (Vaismoradi, Salsali, and Marck 2011, 434).

Competent nursing faculties that are well prepared in various pedagogical approaches and patient safety concepts are important in the provision of quality student experiences, however, studies show that the faculty members and clinical preceptors are ill-prepared in the field of patient safety (Sherwood and Drenkard 2007, 151; Tregunno et al. 2014, 257). According to Vaismoradi (2012, 101), the nursing faculty members are not well prepared because the field of patient safety is relatively new and most staff members of the nursing faculty completed their nursing education before the emergence of this field and therefore may not have received the same continuing education that practice settings have provided for nurses in practice.

Nursing education has been focused on the development of nurses who are able to provide patient care to the population. However, with the changing times, nursing education needs to shift its focus not only to care provision but also to the development of competencies related to patient safety and quality improvement. This study was carried out with the objectives of identifying the explicit patient safety concepts in the formal preregistration nursing curriculum in Kenya and of exploring the perspectives of the nursing faculty members and clinical nurses on the patient safety education in the nursing curriculum.

Research Methodology

Study Design

An exploratory and descriptive design was employed with a qualitative approach to achieve the objectives of the study. A qualitative content analysis of the formal nursing curriculum and other curriculum documents was performed to identify aspects of patient safety that are covered in the preregistration curriculum as well as how they are taught and assessed. In-depth, semi-structured interviews were conducted with staff members of the nursing faculty from each university and clinical nurses from the hospitals.

Study Setting

The study was conducted in two universities and two hospitals in Kenya. The two universities which offer a preregistration Bachelor of Science in nursing degree are accredited by the nursing regulatory and accrediting body in Kenya and offer a full four-year cycle of training. The hospitals included were those where the nursing students completed their clinical education.

Population and Sample

A convenience sample of two universities was used for the study. A purposive sample of 13 staff members from the nursing faculties from the universities and 14 clinical nurses from the hospitals was used. The nursing faculties consisted of curriculum leaders or their equivalents who were deemed to be influential in the curriculum design and implementation. The clinical nurses were key informants ranging from those who were in charge of the wards where the nursing students undertake their clinical learning,

the clinical educators responsible for the students in the hospital and the preceptors or mentors who support and guide the students during their clinical rotations.

Data Collection

Data were collected from January to May 2017. The qualitative content analysis of the curriculum documents was carried out using a coding frame that was designed based on patient safety concepts drawn from relevant literature, the Patient Safety Curriculum Guide: Multi-professional Edition, and the QSEN concepts. The documents were then searched for the key terms as specified in the coding frame using Microsoft Word for the documents that were provided by the schools electronically, and manually with pen and paper for the documents that were given in hard copy.

The staff members of the nursing faculty and clinical nurses' semi-structured interviews were conducted using interview guides specific to each group. The interviews were conducted in a location that was most suitable to the participants and at their convenient time. The researcher conducted the interviews personally to allow for better and deeper analysis of the information obtained. The researcher explained the purpose of the interview and requested permission to audiotape the interview and also to take notes. The researcher conducted the interviews based on the interview guide but also exercised flexibility so as to gain more information. The interviews lasted between 20–30 minutes.

Data Analysis

The content analysis of the curriculum documents was carried out by searching through the documents for the key terms as specified in the coding frame using Microsoft Word for electronic documents, and manually with pen and paper for the documents that were given in hard copy. The interviews were transcribed verbatim and the researcher then listened to the interviews while comparing with the transcription notes to ensure accuracy. In so doing all meaningful and recurrent ideas and issues in the data were noted and this became the initial coding in the thematic analysis from which the themes and the subthemes would emerge (Vaismoradi et al. 2016, 100). The researcher then read through the transcripts again and determined any other new codes that had been missed during the initial coding and also collapsed others that were similar by comparing similar participant interview excerpts. During the process, the researcher avoided personal bias by remaining open and spontaneous. The codes were then revised and connected to define the themes and subthemes; any codes unrelated to the research objective were detected and removed. The researcher then critically reread the transcripts with the emergent themes and subthemes while trying to maintain a different angle as a form of self-criticism to ensure that nothing was missed.

Ethical Considerations

Ethical clearance was obtained from the University of South Africa and the Pwani University Ethical Review Committee. Approval to conduct the study from the

respective universities and the hospital boards was also obtained. Participation in the study was voluntary. The participants were provided with written information in the interview consent form about the research, and upon agreement with the participants they were asked to sign and date the consent form.

Results

An analysis of the curriculum documents did not identify any explicit patient safety course, theme, competence, or assessment in both programmes. However, patient safety was implicit within the curriculum as a series of statements and inferences to patient safety in both programmes. The clinical aspects of patient safety which include infection prevention and control, medication safety, and invasive procedures were integrated to an extent in the nursing curriculum. However, the sociocultural competences as documented by the WHO and QSEN were notably absent from both nursing schools.

From the thematic analysis of the interviews, five main themes emerged with subthemes as presented in Table 1.

Table 1: Themes and subthemes of the study

<i>Theme</i>	<i>Subthemes</i>
Curriculum issues	Lack of explicit patient safety content Inadequate faculty preparation Formal and informal teaching
Student attitude to nursing as a career choice	
Patient safety culture in clinical settings	Lack of emphasis on patient safety Blaming culture Resource constraints
Clinical education issues	Lack of structured mentorship programme Theory-practice gap Role strain
Academic-clinical relationship	

Theme One: Curriculum Issues

Lack of Explicit Patient Safety Content

The lack of visibility of patient safety concepts in curriculum documents was reflected by the views of the staff members of the faculty who reported that patient safety was not a discrete and explicit topic but rather implicit and integrated in the nursing curriculum:

So, but I don't think that there's any particular topic on patient safety that is, that we can isolate and say that we are teaching our students something on patient safety. So I don't think that is isolated and probably that is the reason why ... they realised that there's a problem with patient safety. (NS05)

Inadequate Faculty Preparation

The participants were asked to describe patient safety in their own words. The participants had a general understanding of patient safety with definitions that ranged from simple to broad definitions. However, the majority of the participants reported that they had not had any training on patient safety concepts or teaching and learning methods for patient safety:

As a lecturer, I have never had or rather have not known any formal training which is specifically on patient safety issues. (NS12)

Formal and Informal Teaching

Despite patient safety not being explicit in the curriculum, the participants reported that they did in fact integrate some patient safety concepts in their teaching using both formal and informal methods of teaching:

Well, they are not articulated well in the curriculum, but in the process of my teaching, I always emphasise about patient safety because without ensuring safety of the patient then you cannot say you are offering quality nursing care. (NS09)

If it is someone who has had previous experiences with patient safety you will find that in his or her teaching, they will try to highlight it. But that might not be found in a lecturer or a teacher who has got no hands-on experience. (NS07)

Theme Two: Students Attitude to Nursing as a Career Choice

The participants reported that without the right attitude to nursing in general, the students were likely to become less patient-centred, which is a core prerequisite in being safety conscious during their practice:

My concern is that most of our children these days go for what the parents have told them to study. They don't go for nursing because it is a passion, it is what their parents have said, and they just got a chance to go to the university. So for the few who go there because they have liked it, they do very well and they are safe nurses. (HS13)

Theme Three: Patient Safety Culture in Clinical Settings

This theme and its three subthemes related to the perceptions of the staff about the patient safety culture in the clinical settings which the students are exposed to and their influence on the clinical learning about patient safety.

Lack of Emphasis on Patient Safety

Most of the participants expressed concern that the hospitals did not place enough emphasis on patient safety. This view was further supported by the participants' reports of the lack of policies and procedures on patient safety as well as the lack of training on patient safety in the hospitals:

In Kenya specifically, I think patient safety is quite poor. Yes, because students are not exposed to patient safety in the hospitals. Quite a lot of patient safety is taken for granted. Not until an accident has happened it is when we reflect on the same. (NS07)

I think patient safety is a neglected aspect and it is a very important one – we have very many patients dying because of just safety negligence. We have people getting infections from hospitals which they could not have gotten. (HS08)

Blaming Culture

The participants noted that some of the clinical sites have a defensive, concealing and blaming culture that may intimidate the students:

When we talk about patient safety, again much of it is in the incidence report that scares all kinds of nurses and student nurses. So to us, patient safety means that you have got to fill that incidence report, you might have given the wrong drug, you might have given to the wrong site, the patient might have fallen down and you were with the patient, but most of the times you don't report it, why? Because you fear that there will be negative repercussions. (NS05)

Students become afraid because sometimes something goes wrong and you have students here and the students won't say. Because the student is afraid maybe the institution will be told and then maybe he'll be punished. (HS04)

Resource Constraints

The participants identified one of the factors that hinder and compromise patient safety in the hospital as the lack of resources, which included the lack of water supply, waste segregation options, proper safety equipment and limited capacity of the hospitals:

Also the hospital needs to expand – the population is growing – like this ward has a capacity of 40 now we are admitting 60. The toilets remain the same and the beds remain the same so right now we have three, four patients sharing the beds so that is worsening. Even with bedrails, this is worsening the safety of the patients' coz now here will be cross infection, we can't get rid of cross infections in the ward and then those falls will be there. And then now when it comes to the facilities, the toilet, water we have to improve such things, sometimes there is even no water in the taps for washing hands ... (HS14)

And there are issues to do with equipment, equipment are lacking. The supplies that may be required to help in controlling infections are also lacking. So I think there's much needed to be done. (NS10)

Theme Four: Clinical Education Issues

Theory-Practice Gap

Concern was raised about the disparity between classroom teaching and the clinical teaching. The participants were of the opinion that there was a shortfall in the teaching of the practical aspects of patient safety from the universities as well as in the hospitals:

I think what I'd say about patient safety in our nursing education, is our systems there may be having a disconnect between the skills and what the skills are conceptualised on as what they want the student to gain and what the hospitals are having and how our students when it comes to patient safety are they being mentored enough. Coz that is where they learn the skill that is where they learn the attitude. So our concepts may end up being lost, they are not being translated from what we actually having in the curriculum. (NS06)

I think the best way to go about this is to include it in the practical aspects of our trainings because I think you are taking them through the theory but practically I have not seen it come out clearly about the patient safety. Apart for it coming through the topics that we share with them but practically I have not seen it coming out clearly. So if you can bring it out clearly during practicals then it will be very good. (HS09)

Lack of Structured Mentorship Programme

The participants pointed out that they took up the role of mentorship for the students when they reported to the clinical settings because they were obliged to do so as part of their professional requirements. However, they reported that there was no structured mentorship programme or any policies or procedures that guided the performance of this role:

Yah, I think there is no clearly defined mentorship programme because there is nobody allocated in the ward to take care of these students because today this one is an in-charge, tomorrow is somebody else and there is no training done for specific people to mentor. (HS12)

We have no specific criteria for choosing the mentors. Basically we just use the ward in charges and their deputies. So that when we send out students there, they report to them and they work under them. but most of the time, we find that most of the things like teaching them, we have to go there and do it ourselves from there because there are those mentors who are well oriented and those who are not well oriented. (NS06)

As a result of the lack of a structured mentorship programme, the participants reported that the model of mentorship that was used in the clinical learning was a generic

mentorship model, whereby any qualified nurse could take up the role of mentor as long as they were working in that clinical setting.

... because like in the hospital, we have a team of mentors for the students who are actually not in the clinical areas. But as a registered nurse, when they come to you, it is your responsibility to take it up. (HS05)

Role Strain

Coupled with the generic role of mentorship imposed on each qualified nurse in the hospital, staffing and workload constraints as well as a large number of students in the wards were reported to be putting a strain on their ability to properly mentor the students:

...as much as I would like to mentor them – like now I reported alone, I might have more than four students it's not easy. (HS11)

Because sometimes you find they are left alone or they have so many, we are overwhelmed by whatever they need from us. So you find they feel frustrated or they feel they have just come to clear, have come to assist us to clear the workload and then they are not able to actually get what they wanted with ease. (HS14)

Theme Five: Academic – Clinical Site Relationship

The final theme that emerged from the interviews was concerned with the relationship between the clinical sites and the universities. The participants expressed the concern that the university did not support the clinical learning of the students and left all teaching to the staff at the clinical sites. They reported that lecturers rarely went to the clinical sites to monitor the student progress and only came for the assessments at the end of the rotation:

Surprisingly we don't meet the instructors – they have never been here. (HS03)

So I think what is happening is like institutions are, they throw the students to us, they leave all the clinical teaching to the hospital staff. From my opinion we need to be collaborative. (HS07)

One participant expressed that the lecturers from the schools could enhance learning in the students by visiting the students at the clinical sites and also by ensuring that there were clinical instructors in the hospitals to carry out and support the clinical teaching and assessments.

Because when a student sees the lecturer, you know the student believes the lecturer is the primary instructor. So when student see the lecturer participate in whatever you are trying to train the student on the ground, the student tends to even put more emphasis on, and even take it as an important aspect as compared as to when we do it on our own just as hospital staff. (HS07)

Discussion

The findings from this study showed that patient safety was not explicitly covered in the curriculum documents but rather implicitly in the nursing programmes which are consistent with findings from other studies (Attree, Cooke, and Wakefield 2008, 239; Cresswell et al. 2013, 843; Mansour 2013, 157). The WHO recognises that to have a curriculum that is committed to preparing safety conscious healthcare workers, it is important that both the clinical safety themes and the core and broader sociocultural aspects of patient safety be explicitly included so as to ensure that they are taught comprehensively (WHO 2011b, 29). Teaching students on patient safety can be formally and informally as accomplished by the nursing faculty in this study. However, whichever strategy is used requires that the students be kept active and engaged so as to acquire the necessary competencies, and that the faculty use teaching and learning strategies that facilitate the development and demonstration of the competencies (Pijl-Zieber et al. 2014, 676). Teaching patient safety requires more than just the use of didactic instructional methods but rather requires that the students be immersed in more realistic and authentic experiences so as to keep them engaged and interested as well as to give them the feel of a real-life situation (WHO 2011b, 51).

Almost all the faculty members reported that they had not had any formal training in patient safety concepts or instructional methods in teaching patient safety. Patient safety as a discipline is relatively new and most of the faculty members and nurses were trained with a similar curriculum where patient safety was not an explicit component therefore they are not well prepared to teach patient safety. Strategies that have been proposed to bridge this gap include building the patient safety competencies of both faculty members and clinical faculty members, interprofessional faculty development, a closer and better partnership between the academic setting and clinical setting so that the faculty members are able to understand the current patient safety issues in the clinical sites as well as to make patient safety education and research a priority in the academic departments (Coleman et al. 2017, 52; Wong, Levinson, and Shojania 2012, 115).

Student characteristics were also identified as a factor that can influence the students learning of patient safety mainly the poor attitude to nursing because it was not their career choice. In Kenya, admission to the degree nursing programme is based on the high school grades where the students, while in high school, choose the course they would like to undertake at the university with nursing as a first, second, third or last choice. Therefore if nursing was not a first choice they view it as a means to an end and not as a course of interest. The attitude of nursing students to nursing is an area of interest for the nursing educators as well as the healthcare systems because of the high rates of attrition in nursing schools and the hospitals (Kovner et al. 2014, 26; Merkley 2016, 71). Research on the attitude of the nursing students shows that there is a rise in the negative attitudes to the nursing profession owing to factors such as the low salary, the poor perception of nursing by the public and other health professionals, and the long working hours (Belete, Lamaro, and Henok 2015; Tseng, Wang, and Weng 2013, 161).

The participants recognised that the patient safety culture of the clinical sites greatly affected the way the students learn about safety and noted that some of the clinical sites have a defensive, concealing and blaming culture that may intimidate the students. The patient safety culture of the clinical site is part of the hidden curriculum which is a set of influences that functions at the level of the organisational structure and culture and includes customs, rituals, commonly held “understandings” and the “taken-for-granted” aspects of a profession (O’Donnell 2014, 5). When the setting has a good patient safety culture, it is valuable to the students as it informally and positively shapes their behaviours, attitudes and practices, and prepares them for real-life situations. But if the culture that the students are exposed to is inconsistent with what they are taught in class this may impede the learning process of the students (Martinez et al. 2014, 482; Steven et al. 2014, 277). Faculty members need to examine their curriculum for the explicit and implicit influences both in the classroom and the clinical sites. More so, they need to discuss with the students the elements of the hidden curriculum that they can encounter in the clinical sites and need to equip them with strategies on how to manage those influences. In addition, the faculty members need to evaluate the clinical learning environment on a regular basis so as to ensure that it fosters learning and reflects the patient safety culture that is ideal for learning about safety (Hodges and Kuper 2015, 41).

Mentorship was also described as a challenge in clinical education. Student mentorship is an integral part of clinical education whereby the experienced nurses orient and facilitate learning for the student nurses in clinical practice. The mentors serve various roles including but not limited to being role models, guardians, advisors and counsellors for the students when they are in the clinical setting (Jokelainen et al. 2011, 2854). However, as reported in this study, mentorship was not clearly defined; the mentors were not clearly oriented to their role as mentors and they did not always carry out sufficient clinical teaching especially on patient safety issues. These study results support a previous study done at Kenyan universities to evaluate the quality of clinical education whereby the majority of the students reported that they were dissatisfied with the clinical supervision (Nyangena, Mutema, and Karani 2011, 22). Similar challenges and barriers to effective mentoring have been reported in literature and these include ambiguity as to the requirements of the mentors’ role, conflicting demands with their clinical roles, difficulties in assessing the students, lack of support by the organisation, and lack of satisfaction with the role (Chang et al. 2015, 220; Cloete and Jeggels 2014, 4; Madhavanpraphakaran, Shukri, and Balachandran 2014, 28). To overcome these challenges and barriers, some of the strategies that have been proposed include the establishment of close cooperation between the academic and clinical sites with a clearly defined understanding of the partnerships, familiarisation of the mentors with the theoretical and practical components of the curriculum so that there is no mismatch of the two during mentorship. Furthermore, there needs to be a support of the mentors by recognising their role as well as continuing education and in-service education programmes for the mentors to enable them to stay current with the changes in healthcare practices (Douglas et al. 2016, 34; Jokelainen et al. 2011, 2854).

The collaboration between the nursing schools and clinical settings was also established as a factor that influences patient safety education. The hospital staff reported that the university did not support the clinical learning or monitor the progress of the students in the clinical areas, and that there was limited involvement of the clinical settings in the curriculum design and implementation. This concern can be explained by the fact that historically in Kenya, nursing schools were operated by the hospitals under the same governance and structures, however, over the years the two have separated with nursing schools running independently from the hospitals. The nursing schools, as reported by both the nursing faculty members and hospital staff, then agree to a memorandum of understanding with the hospitals which they utilise for clinical practice and which outlines the role of each member in the clinical education.

The separation of the two entities has been beneficial in the advancement of nursing education in Kenya, however, the separation has meant that now the nursing faculties are not directly involved in the clinical settings and therefore they cannot control the quality of the clinical learning environment effectively. Academic-clinical partnerships and active participation are important in ensuring the quality of the educational programme. Research shows that when there is good collaboration between the two, the students have a better clinical learning experience which is supported by expertise from both the academic and clinical settings, and the result is the development of safer and competent nurses (Elsborg Foss et al. 2014, 396; Lapeña-Moñux et al. 2016, 1).

Recommendations

It emerged from the findings that patient safety is not an explicit concept in the preregistration nursing education, the faculty members were ill-equipped in the teaching of patient safety, and the sociocultural aspects of patient safety were missing from the curriculum. The public are increasingly becoming aware of patient safety and their right to a safe public healthcare system. Therefore, the nursing schools also have to train nurses who are adequately prepared to be able to provide safe and quality nursing care. This means that the integration of patient safety in the nursing curriculum is urgent. Training and capacity building for the nursing and clinical faculty members should be carried out to ensure that they are equipped with the necessary knowledge and skills to be able to teach, mentor and assess the students on patient safety. In addition, closer links need to be established between the nursing schools and the clinical settings to ensure that both are working towards the same goal of having safety-conscious nurses.

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