Nursing students' perspectives and suggestions on patient safety—Implications for developing the nursing education curriculum in Iran ☆

Mojtaba Vaismoradi [a,*], Terese Bondas [b,c], Melanie Jasper [d,1], Hannele Turunen [c]

[a] College of Human and Health Sciences, Swansea University, United Kingdom
[b] Faculty of Professional Studies, University of Nordland, Bodø, Norway
[c] Department of Nursing Science, Kuopio Campus, University of Eastern Finland, Kuopio, Finland
[d] College of Human and Health Sciences, Swansea University, Room 142 Vivian Tower, Swansea SA2 8PP, United Kingdom

ARTICLE INFO

SUMMARY

Background: Nursing students' close involvement in knowledge development about patient safety will enhance the integrity of the current content of nursing education and pave the way towards developing a nursing curriculum that facilitates achieving a safer health-care system.

Objectives: This study explores nursing students' perspectives and suggestions on developing patient safety aspects of the nursing curriculum in the context of Iranian culture.

Design: A qualitative methodology involving three focus groups with a purposive sample of 18 nursing students from a large Iranian nursing school, utilising directed semi-structured interviews generated data, which was analysed using the content analysis process.

Results: Two main themes emerged from content analysis: (1) "involving students fully in patient care" with sub-themes 'building a trusting relationship between education and practice', and 'promoting inter-dependence between health-care providers', and (2) "structuring patient safety education" with subthemes 'transforming nursing routines to evidence-based care', and 'connecting care to patient safety issues'.

Conclusions: The extent of students' involvement in clinical practice and clinical nurses' roles in student education in practice requires clarification. The curriculum needs to incorporate patient safety aspects throughout, and include interdisciplinary education to ensure compliance with patient safety policies. Moreover, successful implementation of such a curriculum necessitates cooperation from nursing practice and instructors to meet nursing students' expectations.

Introduction

Global interest to ensure safety in healthcare is driving policy development, both in improving clinical practice and in transforming health professionals' education (Sherwood, 2011; WHO, 2012). Achieving a high level of safety in hospitals requires a wide range of actions in the recruitment, training and performance improvement of health-care professionals (Leape, 2009; Vaismoradi et al., 2011).

Whilst all health-care practitioners share responsibility for ensuring the safety of patient services, being alert to dangers and conducting preventive interventions to maintain patient safety are of major concern to nurses (Lankshear et al., 2008; Butterworth et al., 2011; Kohlbrenner et al., 2011). The level of nurses' skills and knowledge are identified as two of the key factors in enhancing patient safety (Alfredsdottir and Bjornsdottir, 2008). Thus, nurse executives and educators alike have a stake in ensuring nurses are prepared to assure safe patient care (Sherwood and Drenkard, 2007). Health-care practitioner education needs to include training and assessment of knowledge and skill pertinent to patient safety (Liaw et al., 2011; Okuyama et al., 2011), with nursing education focussing on practise which aims to protect, maintain, and promote safe care through creating and maintaining the highest standards (Stievano et al., 2009; Butterworth et al., 2011). The World Health Organisation (WHO, 2011) developed a comprehensive guide to assist universities in all fields of healthcare to teach patient safety, providing a template for use in nursing schools.

Reason (2000) suggests that the management of patient safety issues focuses on different interventions with people, teams, tasks, the workplace and the institution as a whole. The role of people in the commission of errors is central to nursing education (Gregory et al., 2007). Sherwood (2011) and Wilcock (2011) claim that health-care settings lack nurses with patient safety knowledge and skills, possibly

because patient safety as an explicit curriculum theme has not been integrated into nursing education (Attree et al., 2008; Smith et al., 2009; Vaismoradi et al., 2011). The system's focus on working conditions and construction of error prevention mechanisms (Reason, 2000) are connected to nursing education, with the aim of preparing practitioners able to mediate the impact of workplace issues on patient safety and prevent errors using their knowledge and skills.

Evidence about how patient safety is addressed in health-care professional education and how organizations develop safe health-care practitioners remains limited (Attree et al., 2008; Attree and Newbold, 2009). Therefore, there is a need to investigate how these themes can be utilised to develop guidelines and recommendations for best educational practice in both curriculum and clinical settings (Smith et al., 2009; Richardson and Storr, 2010). Conducting studies on this topic provides a framework for ongoing education and training for patient safety worldwide (Wakefield et al., 2005; WHO, 2010).

Patient Safety Education—Background in Iran

Initial preparation of nurses in Iran is a Bachelor's degree, with its curriculum having undergone several reforms over the past decades with the intention of ensuring that the knowledge and skills of graduates match requirements for providing safe and high-quality care. The most recent reform started in 2011 and was guided by the following tenets: evidence-based nursing, community-oriented education, competency-based education, problem-based learning, and student-centred education.

Nurse instructors teach students the basic principles of patient safety throughout the programme but no specific patient safety education per se is identified, resulting in a deficit in students' preparation for integrating safety into patient care delivery prior to entering clinical practice environments (Vaismoradi et al., 2011). Whilst students' perspectives on weakness and strengths of nursing curriculum are rarely sought, they may provide insight into how nursing education can empower them to practise safely as future practitioners. Moreover, the strengths and weaknesses identified may provide motivation for programme redesign and reform.

Aim

This study's aim was to explore nursing students' perspectives and suggestions on developing the nursing curriculum in the context of Iranian culture.

Methods

Design

A qualitative methodology utilising focus groups with students and a content analysis approach for data collection and analysis was employed.

Setting and Participants

This study was conducted during 2011 in a school of nursing in an urban area of Iran. Purposive sampling was used to recruit 18 bachelor's degree nursing students. All were female, at different clinical sites with different clinical instructors studying as junior (second and third year of studentship) and senior (fourth year of studentship) nursing students (14 and 4 students, respectively), chosen to capture a range of perspectives. The first author met all potential student participants and after describing the aim and method of the study, invited them to participate in the study. 18 volunteers were divided into three focus groups, which were held in the Student Scientific Research Centre of the University. The authors deemed the most successful students more suitable for

participation in this study as they would more likely able to critic the nursing curriculum on its patient safety aspects and provide in-depth data.

Ethical Considerations

The Research Council affiliated with Tehran University of Medical Sciences approved the study and corroborated its ethical considerations. All participants gave oral informed consent having been told of the study's purposes and methods, that participation in the study was voluntary and that they could withdraw from the study at any time. They were assured of confidentiality and anonymity in dissemination of the study's findings.

Data Gathering and Analysis

The first author conducted three focus group interviews. Focus groups are conducted to capitalise on communication between research participants in order to generate data and are directed through specific questions led by the researcher. This method is particularly useful for exploring people's knowledge and experiences, improving the depth of data gathering, and can be used to examine not only *what* people think but *how* they think and *why* they think that way (Webb and Kevern, 2001; McLafferty, 2004). The heterogeneous identity of each group in terms of academic semester and mixing junior and senior students improved exploration of different perspectives.

In a comfortable setting convenient to the participants, the first author, as a doctoral nurse and the moderator, explained the aim of the study, encouraged the participants to discuss the topic, facilitated interactions among members, interjected probing comments, transitional questions, and summarised the issues. A PhD candidate colleague managed the audio-tape recording and took notes during the interviews, as well as observing interpersonal interactions and encouraging quiet members of the groups to participate actively. The focus groups lasted between 50 and 70 min. The major foci of the questions in the focus groups were: How does the nursing curriculum prepare nursing students to practise safely as future nurses? What are your expectations of a nursing curriculum that prepares you for safe practice? The questions progressed from general to specific as topics were explored to generate detail and example (Tong et al., 2007). Iterative data collection and analysis proceeded concurrently, data analysis was conducted between focus groups and findings were reflected upon and validated in the following groups. Once the themes were identified and data saturation was achieved, the focus group interviews were discontinued. Graneheim and Lundman's (2004) steps were taken to analyse the data:

(1) transcribing the interviews verbatim and reading through several times to obtain the sense of whole;
(2) dividing the text into meaning units that are condensed;
(3) abstracting the condensed meaning units and labelling with codes;
(4) sorting codes into sub-themes based on comparisons regarding their similarities and differences;
(5) formulating themes as the expression of the latent content of the text.

Rigour

Using Lincoln and Guba's (1985) criteria for assessing rigour in qualitative research, credibility and confirmability were achieved by returning a summary of the interviews to three participants for checking, confirming that their perspectives were represented. All the authors conducted the data analysis independently, and discussions were held between them in cases of disagreement until a consensus was reached. In addition, one PhD candidate reanalyzed the data as peer checking, and the research team further analysed and