

Research Article**NURSE EDUCATORS VIEWS IN THE TRAINING OF PRESERVICE COMPETENT NURSE USING SEQUENCING:
A QUANTITATIVE/QUALITATIVE RESEARCH IN THE NORTH WEST REGION OF CAMEROON*****Mou Bridget Sen and Mary Bi Shu Atanga**

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Abstract

The study, on nurse educators' views on the training of pre-service nurse using sequencing was investigated because of shortcoming in nurses training, nurse educators dissatisfaction with the training of pre-service nurse in training institutions, inability of students to apply nursing procedures during encounters in clinical settings, no sequencing of courses, and the existence of a theory practice gap in nursing graduates. To achieve this the objective was; to analyse the view of nurse educators in the training of nurses, in training institutions. This study aimed at analysing nurse educators' views for training pre-service competent nurse using sequencing in training institutions in the north west region of Cameroon. **Methods:** Quantitative and qualitative study, 24 nurse educators from six training institutions in the North West Region of Cameroon. A multistage sampling was used to sample nurse educators for data collection. Data collected through conservative sampling and analysed by SPSS version to yield disciplined statistics. Qualitative data through interview and analysed by INVIVO 19. **Results:** Twenty-four nurse educators participated in the study with a return rate of 100%. Findings show that according to the nurse educator's views, the school curriculum meet the training of competent nurses at the international standards (50%), and that course content is well structured, theory comes before internship (66.7%). Results shows a contradictory statement as educators sometimes decide to teach a particular content before another as it is not well arranged in the curriculum (50%). Majority of the educators also strongly affirmed that some important contents were absent in the curriculum (41.7%), with ($P = 0.049$), student nurses are well grounded in theory before clinical experience (58.3%), with ($P = 0.031$) Also, that the time lag between theory, clinical laboratory and practice environment is adequate for each course (41.7%), with ($P = 0.018$) but up to 33.3% disagree on that fact showing that student spent more time on theory. **Conclusion:** From the views of nurse educators, the various curriculum of the institutions, lack sequencing of course contents to match planned learning experiences.

Keywords: Nurse Educators Views, Training, Pre-Service Nurses, Competent Nurse, Course Sequencing.

INTRODUCTION

Improving the quality of nursing education and training is an important way of strengthening health systems. In today's changing era, the paradigm of education system moving towards achieving high level quality education, the core and the key feature of academia is curriculum along with other significant contributors like competent teachers and learning environment. Curriculum Sequencing is defined as the efficient ordering of the content in order to improve the learners' understanding, and help them achieve the objectives (Morrison *et al.*, 2007). This can be achieved at various levels of the curriculum ranging from program level to a single course level (Kuhn *et al.*, 2009). To ensure sequencing in all components of curriculum, the process incorporates certain variables such as level of course/ curriculum objectives, emphasis on content and relevant assessment, (Bhola *et al.*, 2003). But concerns have been raised about nursing education programmes and training. These include, inconsistency in the quality of education programmes; fragmented nature of curricula; no sequencing, content-driven rather than competency-based curricula; content poorly aligned to the needs of the health-care system. Researcher as nurse educator and practitioner encountered students and graduate's inability to confidently and competently carry out complex nursing procedures for over 8 months after graduation, limited practical courses to match theory. Therefore, training does not adequately prepare students for clinical roles.

These and other factors can cause a theory practice gap. The question is what are students' views in their training using appropriate sequencing in training institutions in the North West Region of Cameroon? As a strategy to these shortcomings, World health organization in 2009, 2013, and 2015 develop a three-year regional prototype for pre-service training of competent nurses. recommending the adoption of an adaptable competency-based curriculum, to educate competent nursing graduates for the 21st century with intention of closing the theory practice gap, promote the progressive nature of education and lifelong learning; and ensure the employment of practitioners who are competent and who, by providing quality care, promote positive health outcomes in the populations they serve (WHO, 2009). This study objective was to explore and analyse the views of nursing students in their training using appropriate sequencing in training institutions in the North West Region of Cameroon.

METHODS

Quantitative and qualitative study was conducted to investigate nurse educators' views (opinions) regarding the training of preservice competent nurses in training institutions using sequencing. The study population was made up of nurse educators who must have taught for at least three years in the nursing institution and has taught the final year students, have gone through the curriculum for the school sequence and gave their consent to participate in the study. A multistage sampling technique was used to recruit participants for the study. The hat and draw method were used to sample institutions for data collection. Eligible participants were recruited from the

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random sampled nursing institutions both private and public in the north West Region of Cameroon. So, 24 nurse educators participated in the study. In each nursing training institution nurse educators were selected by consecutive sampling. Questionnaires made up of both open and closed ended questions were used to collect data. Before administering the questionnaires were pre-tested to validate study questions. The questionnaire was administered to ten nurse educators who were not be part of the study population to confirm the clarity and validity of the questions. The questionnaires were then administered to the sampled study participants who completed the various sections of the questionnaires.

The interview tool made up of both open and closed ended questions were used to collect data. Before administering the questionnaire was pre-tested to validate study questions. This was done by administering five copies to five nurse educators in an institution that did not take part in the collection of study data. This was to confirm the clarity and validity of the questions. The interview tool was administered to selected study participants. The interviews were audio taped after their informed consent and transcribed word verbatim. Data collected from the participants was scored, entered into a register, then the data was put into computer software as database. Tables, were used to simplify understanding, and then the SPSS output yielded disciplined statistics that were used to analyses quantitative data obtained. For the qualitative data, responses were analysed through INVIVO 9.

RESULTS

Demographic information

Twenty-four questionnaires were given to 24 nurse educators in higher institution of learning in the North-West Region that train nurses. All the questionnaires were answered, with a return rate of 100%. According to the result, there were 50% of male and female.

Results show that of the 24 nurse educators questioned, most of them were from institution A, 41.7%, followed by institution B with 25%. The rest of the institutions were 8.3%

Results, show that most of the respondents were from government owned institutions (55%), while the rest were from privately owned institutions (45%) and a greater number teach across the different level with a percentage of ninety-one. Most educators (50%), strongly agreed that the course content meet the training of competent nurses at the international standards and (66.7%) that course content is well structured such that theory comes before internship. Also, agreed that they sometimes decide to teach a particular content before another even though it has been arranged differently in the content (50%). Majority of the educators also agreed strongly that there are some contents which ought to be in the syllabus, but are absent (41.7%).

Table 1. Distribution of views of educators in training pre-service competent nurses

Variable	Frequency	Percent
Classes/level taught		
All Levels	22	91.7
The course content of the institution meets the expectations for the training of competent nurses at the international standards.		
Strongly Agree	12	50.0
Agree	10	41.7
Disagree	2	8.3
The course content is well structured such that theory comes before practical.		
Strongly Agree	16	66.7
Agree	8	33.3
Thesometimes decide to teach a particular content before another even though it has been arranged differently in the content.		
Strongly Agree	6	25.0
Agree	12	50.0
Strongly Disagree	4	16.7
Disagree	2	8.3
There is some content which ought to be in the syllabus, but it is absent.		
Strongly Agree	10	41.7
Agree	8	33.3
Strongly Disagree	2	8.3
Disagree	4	16.7
Student nurses are well grounded in theory before going for clinical experience.		
Strongly Agree	14	58.3
Agree	8	33.3
Disagree	2	8.3
The time lag between theory and clinical laboratory and practice environment is adequate for each course.		
Strongly Agree	6	25.0
Agree	10	41.7
Disagree	8	33.3
The course content is structured such that it contains clinical courses and clinical competencies to match theory.		
Strongly Agree	10	41.7
Agree	12	50.0
Disagree	2	8.3
The institution curriculum is structured to meet standards for the training of pre-service competent nurses.		
Strongly Agree	18	75.0
Agree	4	16.7
Disagree	2	8.3

Table 2. Distribution of differences in educators' views from various institutions

Response	Institution						P Value
	A	B	C	D	E	F	
Course content of the institution meets the expectations for the training of competent nurses at the international standards.							
Strongly Agree	2(17%)	0 (0%)	2(17%)	0 (0%)	4 (33%)	4 (33%)	0.261
Agree	0 (0%)	2(20%)	0 (0%)	2(20%)	4 (40%)	2 (20%)	
Disagree	0 (0%)	0 (0%)	0 (0%)	0 (0%)	2(100%)	0 (0%)	
Course content is well structured such that theory comes before practical.							
Strongly Agree	2(13%)	0	2(13%)	2(13%)	8 (50%)	2(13%)	0.055
Agree	0(0%)	2(25%)	0 (0%)	0 (0%)	2 (25%)	4(50%)	
Sometimes decide to teach a particular content before another even though it has been arranged differently in the content.							
Strongly Agree	0 (0%)	0 (0%)	2 (33%)	2 (33%)	0 (0%)	2 (33%)	0.098
Agree	2 (17%)	2 (17%)	0 (0%)	0 (0%)	6 (50%)	2 (17%)	
Strongly Disagree	0 (0%)	0 (0%)	0 (0%)	0 (0%)	2 (50%)	2 (50%)	
There is some content which ought to be in the syllabus, but it is absent.							
Strongly Agree	0 (0%)	2 (20%)	2 (20%)	2 (20%)	4 (40%)	0 (0%)	0.049*
Agree	2 (25%)	0 (0%)	0 (0%)	0 (0%)	4 (50%)	2 (25%)	
Strongly Disagree	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	2 (100%)	
Disagree	0 (0%)	0 (0%)	0 (0%)	0 (0%)	2 (50%)	2 (50%)	
Student nurses are well grounded in theory before going for clinical experience.							
Strongly Agree	0 (0%)	0 (0%)	0 (0%)	2 (14%)	8 (57%)	4 (29%)	0.031*
Agree	2 (25%)	2 (25%)	2 (0%)	0 (0%)	0 (0%)	2 (25%)	
The time lag between theory and clinical laboratory and practice environment is adequate for each course.							
Strongly Agree	2 (33%)	0 (0%)	0 (0%)	2 (33%)	2 (33%)	0 (0%)	0.018*
Agree	0 (0%)	0 (0%)	2 (20%)	0 (0%)	4 (40%)	4 (40%)	
Disagree	0 (0%)	2 (25%)	0 (0%)	0 (0%)	4 (50%)	2 (25%)	
The course content is structured such that it contains clinical courses and clinical competencies to match theory.							
Strongly Agree	2 (20%)	0 (0%)	2 (20%)	2 (20%)	2 (20%)	2 (20%)	0.160
Agree	0 (0%)	2 (17%)	0 (0%)	0 (0%)	6 (50%)	4 (33%)	
Disagree	0 (0%)	0 (0%)	0 (0%)	0 (0%)	2 (100%)	0 (0%)	
The institution curriculum is structured to meet standards for the training of pre-service competent nurses.							
Strongly Agree	2 (11%)	0 (0%)	2 (11%)	2 (11%)	6 (33%)	6 (33%)	0.100
Agree	0 (0%)	2 (50%)	0 (0%)	0 (0%)	2 (50%)	0 (0%)	
Disagree	0 (0%)	0 (0%)	0 (0%)	0 (0%)	2 (100%)	0 (0%)	

* Statistically significant

According to the educators, student nurses are well grounded in theory before going for clinical experience (58.3%). Majority agreed that the time lag between theory and clinical laboratory and practice environment is adequate for each course (41.7%), but up to 33.3% disagree on that fact. According to them, the institution curriculum is well structured to meet standards for the training of pre-service competent nurses (75%) (Table 1).

There were some differences in the views of the educators from different institutions, with the highest differences from E and F, but the differences were not statistically significant as P-Values were all greater than 0.05, except for the point of absent of some content in the syllabus ($P = 0.049$), student nurses being well grounded in theory before going for clinical experience ($P = 0.031$) and the time lag between theory and clinical laboratory and practice environment being adequate for each course ($P = 0.018$) (Table 2).

Qualitative study shows nurse instructors had challenges using the curriculum that a predisposing factor for a theory practice gap as the student learn the theory and lack practical demonstration in skill lab and will obviously lack confidence to practice on real patients. Also, no practical courses in the curriculum means students have to finish theory and by the time they go for clinical they have forgotten the theory and will be embarrassed in the wards. Also, as the courses are not elaborate it means nurse educators will have distorted information as each one will be devising his/her own course content and teaching is not coherent.

DISCUSSION

Quantitative and qualitative study aimed at analyzing nurse educators' views in the training of pre-service nurse using appropriate sequencing in the North West Region of Cameroon. 91% respondents reported to be training nursing students in all the levels. Most of the nurse educators strongly agreed that the course content meet the training of competent nurses at the international standards (50%). The rest of the nurse educators disagreed that the course content does not meet the training of competent nurse at international standards. Majority of the nurse educators also strongly agreed that course content is well structured such that theory comes before practical (66.7%). Most of the nurse educators were dissatisfied with the curriculum as they agreed that they sometimes decide to teach a particular content before another even though it has been arranged differently in the content (50%). So, the courses are not well sequenced to meet the need of the instructor and the students. Nurse educators also agreed strongly that there are some contents which ought to be in the syllabus, but are absent (41.7%). Non applicability of some topics. From these findings, it shows a mismatch of courses in the curriculum. Studies in other countries have also identified a gap between theoretical learning and clinical nursing services is caused by defects in curriculum planning, amongst other factors (Corlett, 2000). Studies carried out suggest that changes in educational strategies in both theoretical and clinical situations are required (Gonzalez *et al.*, 2008). Yamani *et al.* showed that, applying active educational solutions, and matching the theoretical education to professional needs in the

curriculum, could improve the nursing education (Corlett, 2000). According to the educators, in this study, student nurses are well grounded in theory before going for clinical experience (58.3%). According to the nurse educators, students finish all theory before going for internship in clinical sites. Therefore, the period between theory and practice is very wide and by the time the students go for internship they have forgotten most of the theoretical aspects. Therefore, there is a theory practice gap caused partially by the defects in curriculum planning. Similar findings by (Newton, 2010) in a qualitative study assessing the quality of nursing education in Iran were observed. Most nurse educators agreed that the time lag between theory and clinical laboratory and practice environment is adequate for each course (41.7%), but up to 33.3% disagree on that fact. Many researchers have found that gap between theory and practice in nursing does exist (Fink *et al.*, 2011), as well as the area that can be improved (Ajani and Moez, 2011). The results of the study revealed that there is a gap between theory and practice in training pre-service nurse, were related to late clinical setting.

The studies of Rozina (2011) and Ajani (2011) support that educators of nursing theory must constantly monitor clinical practice and re-evaluate the curriculum to ensure that necessary knowledge and skills for successful practice are included in the curriculum and achieved from the educational program before internship. Other studies (Sharif and Masoumi, 2010) supports that the clinical practice as an area that allows students to have direct experience with the real world of nursing, practice the clinical skills required for the job and learn the general nursing routines and responsibilities. On the other hand, studies by (Wall *et al.*, 2014) states that practical demonstration after theory such as simulation courses included in the curriculum, will be useful in preparing student nurses for clinical work. In this study, most participants show that the process of orientation to the place of training, availability of clinical demonstration labs, will positively contribute to bridge the gap and thus enhance clinical learning environment. helping in reducing the gap. Additionally, facilities will enable clinical teaching and learning to take place. Also, the fact that these nurse educators agree that the students are well grounded in theory before going for internship shows that the time lag between theoretical, practice laboratory and clinical site is not adequate and theory is not matched immediately by a practical course. There is therefore, lack of course content sequencing. Students therefore spent time memorizing large volume of theoretical information. According to the nurse educators, the institution curriculum is well structured to meet standards for the training of pre-service competent nurses (75%). There are also differences in the views of the educators from different institutions, but the differences are not statistically significant as P-Values are all greater than 0.05 (Table 3).

Conclusion

From above it can be concluded that: According to the nurse educators' views, the institution curriculum has non applicability of some topics, educational content showing weaknesses with theoretical education. The interval between the taught content and apprenticeship is long as they finish theory before practice showing defects of educational planning and challenges in clinical education. There is failure of application of theory in practice in time causing challenges in clinical education and the problem of theory practice gap. From the views of nurse educators, the various curriculum of

the institutions in the north west region of Cameroon lack sequencing of course contents to match planned learning experiences.

Recommendations

It is then recommended that:

- The curriculum of the various institution in the north west region should be revised by applying innovative strategies such as course content sequencing to fill the gap between the theoretical and practical aspects.
- The time lapse between the learned topics and apprenticeship should be shortened, giving students enough time to integrate the theoretical topics into their practical skills.
- There should be adequate educational planning so that students learn the basic nursing knowledge to be able to solve the problems encountered in clinical situations.
- Nurse educators should ensure that the course content of the curriculum is well sequenced to match planned learning experience.

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