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1. INTRODUCTION

Professional nursing education in Zambia started in 1969, when Kitwe school of nursing was opened to train a three year diploma course for state registered nurses. The nursing education system was politically driven, Schuster (1981), in his paper highlighted the fact that the political decision to maintain strict standards of international excellence in curriculum design created problems e.g. the students' individual differences were ignored and were taught as a group leading to an inevitably high failure rate. The other problem was failure in curriculum design to compare, contrast and evaluate western and traditional concepts of illness and healing to examine sub cultural differences in Zambian traditional medical practices. The conceptualisation, planning and development of nursing followed the broad pattern of establishing western institutional structures.

The legal frame work for Zambian nursing has undergone amendments with current Act of 1997 which broadened the scope of practice for nursing and midwifery; however by 1999 the curriculum for nursing education had not been reviewed the past 7 to 10 years (General Nursing Council) (GNC), (2002). On the international scene, in the United States of America (USA) Lewis et al (2006), their results have indicated that originally nursing education In USA was based on the behaviourist model of education as learning was conceptualised as a linear systematic process involving assessment of learning needs objectives formulation, content development, delivery to students and evaluation. Emphasise was stressed on goal attainment that must be objectively measured. The authors assume that the behaviourist model lives on either consciously or unconsciously in the minds of main.

Traditional teaching was concerned with the acquisition of skills were a student becomes procedure oriented while neglecting the other needs of the patient (Schuster, 1981). To date, clinical placement in the Zambian schools of nursing is still the same; student nurses are taught in groups, and the assessment is skill based. The national practical qualifying exam is also skill based and is the determinant to the overall result which includes the theory. This is also how all the three authors were taught and assessed despite having been in training at two different schools and different times. The authors were trained in the following years; 1997, 2003 and 2007. And from their experience it is evident that the practical nursing education in Zambia has remained static for a long time. Historically, Wanda (2007), reports that assessment of students during practical placement was skill

based as recommended by World Health Organisation (WHO) in 1983. However, the 2000 WHO European member state recommendations for student nurses assessment in the practical placement area say that assessment should be competence based (WHO, 2000).

The authors of this paper were exchange students from Zambia, two from Livingstone General Hospital; one from the practical area and the other attached to the school of nursing. The third student was from the University of Zambia. They had 8 weeks of practice in Norway, at Sogn og Fjordane University college, Faculty of Health. From the observations of the three students, it was noted that all student nurses had mentors throughout the practical placement period and that there was a relationship established between the student and the mentor. Students were taught individually and the assessment was ongoing i.e. student had an initial interview where expectations and objectives were outlined by the students, halfway assessment and the final assessment. The assessment was based on student's relationship with patients, knowledge of nursing procedures, nursing process, ethical considerations and professional reflection.

Nursing education in Zambia is governed by the General Nursing Council (GNC) which regulates all schools such that the training guidelines are the same for all schools. Livingstone School of Nursing has been picked as an example as two of the authors were trained and are currently working at the same hospital. Forde Central Hospital is referred to in this paper as all the three students were attached to this hospital during practical placement

The position statement for the National League for Nursing (NLN), (2003) states that a curriculum should be evidence based, flexible, responsive to students needs, collaborative and integrates current technology.

Nursing education programme for Norway

According to the National Curriculum Regulations for nursing programmes by the Ministry of Education and Research, (MER) (2004) the overall objective of health and social work programmes is to qualify reflected professionals who focus on the needs of individuals, and are able to plan, organize and implement measures in cooperation with users and other service providers. The aim of the nursing programme is to qualify professionals to work in nursing in all parts of the health service, both in and outside of

institutions. Nursing care and treatment constitute the foundations of a nurse's competence. The nurse shall approach nursing and continuous care of the ill based on an understanding of how it feels to be ill, and knowledge of the causes, diagnosis and prognosis of the various diseases. The qualified nurse should be independent, responsible, change oriented, patient centred practitioner and learning must therefore be viewed in a lifelong perspective where both practitioner and employer are responsible (MER, 2004).

Nursing education in Norway is a three -year Bachelor programme which consist of modules and disciplines amounting to a total of 180 credit points. Practical and skills training is compulsory and consists of 90 credits out of 180 credits points for the whole 3 year nursing programme (MER, 2004).

Practical training consists of the following practical training areas with the specified number of weeks; the specialist health service; medical and surgical units- 16 weeks. Municipal health services; nursing practice in the municipality, elderly care and home nursing for a minimum of 12 weeks, of which 8 weeks practical training is in home-based services or serviced dwellings. Specialist and municipal health services; practical training associated with mental health care for a minimum of 8 weeks. Other practical training for a maximum of 14 weeks; this may include a maximum of 4 weeks practical training at day wards (outpatient's surgery), and at least 8 weeks practical training in home-based services or serviced dwellings (MER, 2004).

Assessment during practice

The curriculum regulations stipulate that the purpose of the assessments is to ensure that students during their study acquire the knowledge and qualifications outlined in the objectives of the nursing programme. Assessments are a continuous and compulsory element of the practical training. The assessments are done twice during each practical period; half way the period and at the end of the practice (final assessment). If doubt arises as to the approval of practice during the half way assessment, the student is given a written notification through the practice or at the latest three weeks before completion of the practice period. The notification specifies what is not satisfactory and which requirement must be met for practice to be approved. If on completion of the practice the student's actions or behaviour are clearly not satisfactory for approval of practice, the student is given a mark of fail even if no such notification has been given. On assessment of practice, a mark of pass or fail is awarded (MER, 2004).

Nursing education programme for Zambia

The General Nursing Council of Zambia has stated that the aim of the registered nursing programme is to prepare a nurse who is self directed, analytical, knowledgeable and skilful in order to be able to respond to changing/emerging diseases and contribute towards improving the quality of care. The nursing curriculum has therefore been designed taking cognisance of the national health needs, client needs and the professional needs, by taking into account the key elements of the national health policies and strategies towards the provision of accessible, equitable and cost effective health care (GNC, 2005).

Direct entry registered nursing Diploma programme in Zambia runs for three calendar years, amounting to a total of 3 654 hours, of which 1 414 hours is allocated to theoretical learning while practical placement carries a total of 2 115 hours. Clinical practice begins when the student nurses are around four months old in training. The first allocation is a six weeks placement in the general medical and surgical wards. During the same period, there is another six weeks practical placement at urban clinics for public health nursing experience. The first half of year one concludes with one week of industrial visit; here the students make group tours of notable local food factories and water/sanitation department. During the second six months of first year, there is twelve weeks practical placement in the general medical and surgical wards and six weeks at urban clinics. Practical placement in the second year comprises of six weeks in the medical wards, six weeks in the orthopaedic wards, six weeks in the obstetrics ward, 3 weeks of public health nursing at a rural hospital, six weeks in operating theatre, six weeks of intensive care unit and six weeks in the gynaecological ward. In the final year of training practical placement consists of twelve weeks in the paediatric wards, six weeks in the mental health annex, one week at a dermatology clinic, four weeks at an ear, nose and throat infections clinic/ward, four weeks in the ophthalmology clinic/ward (GNC, 2005).

Assessment of the general character of the student is continuous throughout training with the ward manager required to fill out the ward assessment progress report at the end of each practical placement. Key issues outlined in this report include student's nursing competencies, self development, professional conduct and patient/relative interrelationship. This form is filled out in the absence of the student nurse, solely by the ward manager. After that, the student signs the completed report which is then handed

over to the clinical instructor who analyses the report to determine the student's weaknesses and strengths as observed by the ward manager.

During practical placements the students are supervised in groups and taught nursing procedures by the clinical instructor. The ward manager and clinical instructor work in collaboration as regards the student nurses' progress in their practical nursing skills.

The hallmark of practical experience for student nurses in Zambia is the mastering of nursing procedures exactly as outlined in the General Nursing Council Registered Nursing learners Guide and Evaluation Manual. Assessments in procedures are done during each practical placement but do not constitute to the final grade obtained during the national qualifying examination. At the end of each academic year, there is a practical exam conducted mostly in the general wards which involves carrying out two procedures, with an average time allocation of half an hour each on a patient under supervision of an ardent examiner and a time keeper. In case of failing, the student is accorded a second chance to pass or face deferment to a junior group. The student may not be required to proceed to the next academic year if they have not demonstrated proficiency in nursing procedures outlined for their level as evidenced by the incompletely filled evaluation manuals.

STATEMENT OF THE PROBLEM

Zambia is a country in the sub-Saharan Africa faced with critical shortage of health personnel especially nurse educators and nurses, the government through the Ministry of Health (MoH) has put human resource training, recruitment and retention as one of its priorities in the National Health Strategic plan 2006-2010 (MoH, 2005). One of the contributing factors to the human resource shortage is inadequate education and training system, HIV/AIDS pandemic, brain drain and retirement (MoH, 2005). A number of strategies have been put in place to increase the number of nurses being trained, graduating, recruited and retained (MoH, 2005). These include among others; increasing the number of nurses graduating annually, increasing number of sufficiently qualified nurse tutors, increasing training output through expansion of the number of training places available and increasing the number of applicants for training and for the nurse tutor improving their retention through provision of monetary and non monetary incentives. Makasa (2008), in his discussion paper has highlighted the fact that the government has put in place some interventions to curb the shortage but it is still very

important that the government and the partners are complimented. Makasa (2008) recommends in his paper to try other strategies that have not been used before to improve the situation.

Currently a number of schools have been reopened for example Kalene School of nursing, other nursing schools have been advised by the government to increase enrolment, and the nurse tutors are receiving the incentives such as retention schemes to ensure that they are motivated. Despite these measures a number of schools are still experiencing failure rates, dropouts and the society at large has continually put forward their displeasure with the quality of nurses being produced. All the strategies put forward so far are looking at the nurse tutors, infrastructure and employment of newly qualified nurses and no one strategy talks about the learning needs for a student. When reviewing the curriculum, were the learning needs for student addressed; is the current curriculum responsive to the student's learning needs on the practical placement?

Purposes of the project

- To describe the learning and assessment methods used on the practical area by Livingstone School of Nursing and, Sogn og Fjordane University College Faculty of Health.
- To discuss theories available for practical learning, assessment and culture.
- To find out what student nurses in Zambia and Norway view as an ideal learning environment on the practical placement.
- Assess the ideal method of teaching and assessment of student nurses for effective transfer of knowledge and skills.

2. THEORIES

Nursing education has undergone change over the past number of years due to changes in technology, disease burden and quality demands from the clientele. A learner in nursing education is prepared to be a critical thinker and solve problems in different contexts. As the student nurse graduates, the nurse is supposed to practice safely, acutely and compassionately in different contexts where knowledge and innovation increase at a fast rate. Nurses are expected to learn through self directed learning (Benner et al 2010).

Students on the practical placements area learn through experience with actual patients in a variety of contexts, what is called experiential learning. According to Benner et al (2010) this is the hall mark of nursing education in the United States of America, where students learn from a particular situation of specific patients, also referred to as situated learning. The possibilities of errors and endangering patients' safety are present; therefore patient safety is enhanced with realistic clinical simulations.

Illeris, (2009), in his book has said that 'learning is a very complex matter and there is no generally accepted definition of the concept, he notes that learning traditionally has been understood mainly as acquisition of knowledge and skills, today the concept covers a much larger field that includes emotional, social and societal dimensions.' In nursing education, contextualisation is emphasised so that the student puts patients' experience into context, including cultural background, patient's environment, illness experience and relationships with patient and family (Benner et al, 2010).

Behaviourism

Behaviourism is one of the earliest theories of learning; John B. Watson was the first theorist to coin the term behaviourism in the late nineteenth century (Pritchard, 2005). The theory is based around the central notion of a reaction being made to a particular stimulus. Seemingly this simple relationship of stimulus- response has been used to describe even the most complex learning situations.

Pritchard, (2005), defines behaviourism as a theory of learning that focuses on observable behaviours and discounting any mental activity. Learning is simply the acquisition of new behaviour. This method of learning is called conditioning. There are two types of conditioning, classical and operant conditioning.

Classical conditioning

This involves reinforcement of a natural reflex or behaviour that occurs in response to a particular stimulus. Ivan Pavlov is one of the scientists who performed an experiment with dogs concerning classical conditioning. Pavlov identified four stages in the process of classical conditioning. Acquisition is the initial phase in learning of the conditioned response. Extinction is where a conditioned response will not remain indefinitely if not reinforced. Once conditioned to a stimulus, an organism may respond to similar stimuli without further training this is called generalisation. Discrimination is when an individual learns to produce a conditioned response to one stimulus but not to another similar stimulus. However it should be noted that making a correct response does not necessarily imply understanding (Pritchard, 2005).

Operant conditioning

This is the most important type of behaviourist learning which involves reinforcing behaviour by rewarding it. It can also be used vice versa to discourage undesired behaviour by enforcing some form of punishment. Skinner, a psychologist is famous for operant conditioning. In his study of rats and pigeons' behaviour, he generalised his findings to humans. Skinner argued that rewards and punishments control majority of human behaviours and that the principle of operant conditioning can explain all human learning. Shaping is a form of reinforcement used to teach human behaviour that they have never performed before; reinforcement begins with a simple response and gradually progresses to more complex response. However, behaviourism gives little importance to mental activity and concept formation thereby rendering it inadequate as a single approach when setting out philosophies of teaching and learning (Pritchard, 2005).

Constructivism

Constructivism is a contemporary theory of learning which was created building upon existing learning theories. Constructivist theory, (epistemology) is a philosophical explanation about the nature of learning. The theorist argues that the learners create their own knowledge. Constructivists do not view knowledge as the truth, but rather a working hypothesis. Knowledge is formed inside an individual, therefore a person's constructions are true to that person and not necessarily to anyone else (Schunk, 2009). This is because people develop knowledge based on their beliefs, experiences in situations which differ from person to person. Learning is situated in a context. According to Schunk this theory

(constructivism) is influenced by the theories of Vygotsky and Piaget. Vygotsky's theory of social interaction forms the corner stone of constructivist movement. Vygotsky's theory asserts three major themes;

- i. Social interaction plays a major role in the process of cognitive development, he argues that learning precedes development
- ii. The more knowledgeable other (MKO), someone with better understanding than the learner with respect to a particular task or process. MKO is normally thought to be a teacher or coach
- iii. Zone of proximal development (ZPD), distance between actual developmental level as determined by independent problem solving and the level of potential development. ZPD represents the amount of learning that is possible by a learner given the proper instructional conditions.

The cultural historical aspects of Vygotsky's theory affirm that learning and development cannot be dissociated from their context. The learner's thinking is changed by interactions with their social world i.e. persons, objects and institutions (Schunk, 2009). The social environment is critical for learning and social interactions transform learning experiences. According to Schunk (2009), Vygotsky emphasise interaction between person and environment there by making his theory a dialectical cognitive constructivism. Mediation is the key mechanism in development and learning.

Application of the theory

Vygotsky's theory promotes learning contexts in which students play an active role in learning. Roles of the teacher and student are therefore shifted, as a teacher should collaborate with his or her students in order to help facilitate meaningful construction in students. Learning therefore becomes a reciprocal experience for the students and teacher (Schunk, 2009).

Constructivism's central ideal is that human learning is constructed; learners build new knowledge upon previous knowledge. Prior knowledge influences new knowledge (Hoover, 1996). Learning is an active process where learner confronts their understanding in light of what they encounter in their new learning environment. Constructivist argues that learners are active and must construct knowledge for themselves. Constructivist highlights the interactions of persons and situations in the acquisition and refinement of skills and knowledge.

Traditional teaching to a group of students is not encouraged; situations should be structured so that the learner becomes actively involved with content through manipulation of materials and social interactions (Schunk, 2009). Activities include observing the phenomena, collecting data generating and testing hypotheses and working collaboratively with others.

Constructivist contend that the learners are taught to be self regulated and take an active role in their learning, by setting goals, monitoring and evaluating progress and exploring their interests. Basic principles must be discovered by the learner themselves. The core premises of constructivism are that cognitive processes are situated in physical and social context. Situated cognition involves relations between a person and a situation. Motivation for learning depends on cognitive activity in interactions with social culture and instructional factors which include language and scaffolding of information. Many processes interact to produce learning (Schunk, 2009).

Situated learning

Situated learning theory is also a contemporary theory of learning and was created by Lave and Wenger. Situated learning theorists argue that learning takes place in a context which may or may not be familiar to the learner; if the context is unfamiliar to the learner, learning will not proceed smoothly (Pritchard, 2005). Therefore, the effectiveness of learning is influenced by the context in which learning takes place. Lave and Wenger (1991), argue that learning as it normally occurs is a function of the activity, context and culture in which it occurs (situated). A learning context can be seen in terms of its culture, time of the day and immediate physical surrounding. Knowledge needs to be presented in an authentic context, i.e., settings and applications that would normally involve that knowledge. Learning requires social interaction and collaboration (Pritchard, 2005). Social interaction is a critical component of situated learning; learners become involved in a community of practice which embodies certain beliefs and behaviours to be acquired. As the beginner or newcomer moves from the periphery of this community to its centre, they become more active and engaged within the culture and hence assume the role of expert or old-timer. Furthermore, situated learning is usually unintentional rather than deliberate. Lave and Wenger (1991), suggest in part that skills, knowledge and

understanding which are learnt and mastered in one context may not necessarily be transferred successfully to another.

Assessment Theories

Assessment is a process of judging or measuring of whether (and what) learning has taken or is taking place (Jarvis et al, 2003). There are basically two types of assessment; these are formative and summative.

Formative assessment is conducted continuously either informally or formally and the intention is to provide feedback about the students learning. It is also referred to as educative assessment/ assessment for learning. It is used to aid teaching (Tenant et al, 2010). Formative assessment is diagnostic in that it is conducted to help plan how teaching or learning should take place or to alter teaching or learning while it is ongoing (Jarvis et al, 2003).

Summative assessment is done at the end of the course or project; it tells us what has been learnt at the end of the learning or teaching process (Jarvis, et al, 2003). It is also called assessment of learning where it is designed to sum up achievement and tends to come at the end of the learning sequence. It is evaluative, the role of the teacher as summative assessor is to provide judgement or provide a grade for the student (Tennant et al, 2010).

Authentic assessment

Authentic assessment is an assessment method that evaluates what a person has learnt by examining his/her collective abilities. It presents students with real world challenges that require them to apply their relevant skills and knowledge (Mueller, 2004). Authentic assessment focuses on student analytical skills, ability to integrate what they learn, creativity and ability to work collaboratively.

According to Mueller (2004), the basic elements of authentic assessment are that; it requires students to develop responses rather than select from predetermined options, and elicits higher order thinking in addition to basic skills. It directly evaluates holistic project, synthesizes with classroom instruction and uses samples of student work (portfolios) collected over an extended time period. Furthermore, authentic assessment stems from clear criteria made known to students, allows for the possibility of multiple

human judgments and relates more closely to classroom learning. It also teaches students to evaluate their own work. In authentic assessment, students are assessed according to specific criteria that are known to them in advance. These criteria are called rubrics.

Theory of culture

Culture is a group's thoughts, experiences, patterns of behaviour, its concepts, values and assumptions of life that guides behaviour and how those evolve with contact with other cultures (Jandt, 2007). According to Neulip (2006) culture teaches one how to think, conditions one, how to feel and instructs one how to act; especially how to interact with others or communicate. Some learning theories such as constructivist, and situated learning theories propose that people are social beings and that learning takes place in a context and in collaboration with others. This context in which learning takes place also includes culture.

Theory of cultural value orientation

Organisational structures, policy norms and everyday practices express underlying cultural value emphases in societies that capture and characterise cultures. Theory of cultural value orientation was developed from what societies do when confronted with basic problems to regulate human activity (Schwartz, 2004). The ways that societies respond to these problems can be used to identify dimensions on which cultures differ from one another. One of the dimensions According Schwartz (2004) is egalitarian versus hierarchy; this is in response to societal problems to guarantee responsible behaviour that preserves the social fabric. In egalitarianism people recognise one another as moral equals who share basic interests as human beings. Important values in such cultures include equality, social justice, responsibility, help and honesty. Hierarchy relies on hierarchical systems of ascribed roles to ensure responsible behaviour. It defines unequal distribution of power, roles and resources as legitimate. Important values in these cultures include social power, authority, humility and wealth (Schwartz, 2004).

High and low context communication

According to Neuliep (2006), human communication is dependent on the context in which it occurs. During interaction there are noticeable features of a communicative context which include; the cultural, social relations and perceptual environment. High context cultures focus more on non verbal elements of the context of communication than

the verbal codes. In high context communication most of the information is either in the physical context or internalised in the person while very little is coded. In low context culture, the mass of information is vested in the verbal code. However high and low context cultures are best conceptualised along a cultural continuum. Therefore no culture exists exclusively on one end of the continuum (Jandt, 2007). According to Jandt, (2007), in low context cultures, verbal messages are highly specific and elaborate and tend to be also highly detailed and redundant. Logic and reasoning are expressed in verbal messages therefore verbal abilities are highly valued. On the other hand, in high context cultures, communication is more indirect or implicit and is more likely to use intermediaries. It decreases the perception of self as separate from the group.

Power distance

Power distance is the extent to which the less powerful members of organizations and institutions accept and expect that power is distributed unequally (Hofstede, 1997). This represents inequality (more versus less), but defined from below, not from above. It suggests that a society's level of inequality is endorsed by the followers as much as by the leaders.

In high power distance institutions superiors and subordinates consider each other existentially unequal, power is centralised. In low power distance institutions subordinates expect to be consulted and leaders are more physically accessible (Jandt, 2007). In schools, education system in low power distance cultures is student oriented. Teachers expect a certain amount of initiative and interaction with students. Students are expected to ask questions and perhaps challenge their teachers. While in high power distance culture teachers are treated as parents with respect and honour, especially older teachers. Students who disobey may be punished severely (Neuliep (2006).

Individualism-Collectivism

In individualistic culture individuals foster contracture relationship based on principle of exchange. They value independence and self sufficiency. Collectivists individuals behave according to social norms that are designed to maintain social harmony. They consider implications of their actions for the whole group. They emphasise harmony and hierarchy (Hofstede, 1997).

3. RESEARCH METHODOLOGY

In this project the authors used qualitative research interview in exploring learning methods and assessment on the practical placement area for student nurses in Norway and Zambia. Illeris, (2009), in his book has said that ‘learning is a very complex matter and there is no generally accepted definition of the concept, he notes that learning traditionally has been understood mainly as acquisition of knowledge and skills, today the concept covers a much larger field that includes emotional, social and societal dimensions’. Qualitative research interview was useful in this study as it explored, described and expanded knowledge about how reality is experienced (Brockopp and Hastings, 2003).

Qualitative research is an inductive approach to discovery or expanding knowledge and it requires the researcher in the identification of the meaning or relevance of a particular phenomenon to the individual (Brockopp and Hastings, 2003). Qualitative research is a strategy that usually emphasises words rather than quantification in the collection and analysis of data (Bryman, 2008).

Characteristics of qualitative research

Qualitative research is based on assumptions and belief in human wholeness. It seeks to build knowledge or relevance of a particular phenomenon. It is useful for developing facts and concepts about an area of interest that has received little research and attention. Analysis and interpretation of findings are not generally dependent on quantification of findings. Qualitative research seeks to determine the richness of data by determining patterns or the richness of the experience. It explores, describes or expands knowledge about how reality is experienced (Brockopp and Hastings, 2003). Qualitative research is flexible and elastic, capable of adjusting to what is being learnt during the course of data collection (Polit and Beck, 2004). The researcher is intensely involved and becomes an instrument of research where the researchers’ communication is taken as an explicit part of knowledge instead of deeming it as an intervening variable (Flick, 2006). Qualitative research is not based on a unified theoretical and methodological concept; various theoretical approaches and their methods characterise the discussions and the research practice. It is non linear and non sequential (Flick, 2006).

Method of collecting data

In this study, data was collected using a semi structured interview guide.

Characteristics of Semi-structured interviews

The interviewer and respondents engage in a formal interview. Questions were developed that needed to be covered according to the topic of research. Semi-structured interview guide is useful when you won't get more than one chance to interview someone and when you will be sending several interviewers out into the field to collect data. The semi-structured interview guide provides a clear set of instructions for interviewers and can provide reliable, comparable qualitative data (Legard et al 2003).

Study population

Study population comprised of all student nurses, who had been in school for more than a year, because they qualified to be in the study as these had an experience of practical learning.

Sampling

Sampling is a process used to select a portion of the population for study. Qualitative research is generally based on non probability and purposive sampling (Ploeg, 1999). In this study we used non probability sampling method which is the convenient sampling design. A convenient sample is one that is simply available by virtue of accessibility (Bryman, 2008). This method was utilised as it influenced the selection of participants, settings, incidents events and activities for data collection. 12 student nurses, 7 from Zambia and 5 from Norway comprised the total respondents for the study. The study involved a total of 12 respondents; Zambian respondents were more than Norwegian respondents by two respondents. This was because the authors wanted to generate more data since the interviews were not conducted orally on a face to face basis.

During data collection the authors used a semi structured interview guide which had 19 open ended questions for Zambian student nurses. This was done as the authors did not travel to Zambia, but sent the interview guide to Zambia. A permission letter to the principle tutor Livingstone school of nursing was written. Upon authorisation to collect data from the student nurses, the 7 students were selected conveniently to answer the questions in the guide. Each interview guide for the student was accompanied by a

consent form, which described the purpose of the project, assurance of confidentiality and the fact that the student had the right to refuse to participate, as participation was voluntary. Upon acceptance to participate the student had to sign. The instructions also followed that the student didn't have to write their name on the interview guide. The students took 30 to 45 minutes to answer the questions.

For the Norwegian students, a semi structured interview guide was formulated with a few questions to guide the interviewer. Since the authors interviewed the Norwegian students face to face, the authors came up with two themes; learning and assessment on the practical area. The interviews were conducted on the practical placement area in Laerdal hospital. During the interview the authors introduced themselves and explained the purpose of the interview verbally and got consent from each student. Confidentiality was assured and the authors explained that no name would be written on any paper. During the interview two authors were present, one asked questions and the other took notes. The interviewer allowed the interviewee to introduce self and say something about the experience so far and to mention how long they had been in training. For guidance with the two themes available 13 questions were formulated to guide the interviewer. The interview with each student took about 20 minutes on average.

Weaknesses for data collection

There were limitations encountered by the authors during the project. The method used to collect data from the Zambian respondents limited the amount of data generated as the authors were not able to ask follow up questions based on the respondents responses. The authors were also not able to observe other non verbal cues which could have been helpful during the interview and analysis of data. For the Norwegian respondents on the hand, language was a challenge. English is not their primary language of communication and hence it was difficult for some to express themselves even when they had a lot to say.

4. DATA ANALYSIS AND PRESENTATION

The data was collected by transcribing during the interview by the second investigator, while the first asked the questions. Norwegian respondents were all females with age ranging from 20 to 21 years; they were all single except for one who was cohabiting, whereas of the seven Zambian respondents one was male. Their ages ranged from 22 to 27 years with an average age of 23.7 years and only one of the females was married. The

data collected was then read by all the three authors individually to come up with themes in line with the research purposes.

The authors agreed to use content analysis for the analysis of the data. Content analysis is an approach to the analysis of documents and texts (which may be printed or visual) that seeks to quantify content in terms of predetermined categories and in a systematic and replicable manner (Bryman, 2008). Coding was done in form of categorisation of the texts from the data collected. The categorisation was developed from the interviewees' own idioms (Kvale and Brinkmann, 2009). The authors looked at the purposes of the study and addressed the major questions that needed to be answered by the study. Each question was addressed and categories were identified from the data available. This is called emergent categories, where the categories emerge from the data collected (Powell and Renner, 2003). The following are the questions which needed to be answered and categories that were identified;

i. How does learning take place on the practical area?

Observing and practicing

All the students from Zambia and Norway said that they learn on the practical area by first observing. The Norwegian students said they observe their mentor and later practice the acquired skills. One student cited that the more responsibilities and tasks she is given the more she learns; *"I learn more when my mentor gives me more tasks and responsibilities."*

The other said;

"After observing the mentor I practice the acquired skills under supervision and later when I gain confidence I am able to practice without supervision as long as the mentor is aware."

The Zambian students on the other hand said they observe the clinical instructor who demonstrates the procedure to the group after which a student performs a return demonstration to the fellow students and clinical instructor, one student said;

"Maximum learning occurs during return demonstrations to fellow students and clinical instructor during which questions are asked concerning the procedure."

The data revealed that repeated practicing and clarification of the acquired skills was important for learning to take place.

ii. What are factors that promote learning on practical placement?

Relationship between the students and nurses

All the respondents cited that a friendly relationship between student nurses and nurses on the practical placement area enhanced learning. One student from Zambia said;

“nurses should be friendly, advisors to students, not act like police officers; punishing students to the extent that a student fails to ask questions because of lack of a relationship.”

Another one said; *“Nurses should not have favourites among students.”*

Some Norwegian respondents said that being treated as part of the team promotes learning. Dialogue between nurses and students was one of the factors they also cited, one respondent said that;

“I am motivated to learn even further as the nurses have some expectations from me and are willing to learn from us students.”

Students initiative in own learning

The data also revealed that students learn more by taking initiative for their own learning. Some Zambian respondents reported that they learn from clinicians during ward rounds by discussions on patient’s conditions and management. Some Norwegian respondents said that they learn by asking their mentors and other nurses questions relating to patient care. One of the Norwegian respondents further said that she also learns by reading and writing nursing care plans of the patients she is looking after. Another one said that she learns from her close friend who had a more knowledgeable mentor than hers.

Teaching methods

Norwegian respondents said that they are taught individually on the practical placement area by a mentor while the Zambian respondents said that they are taught as a group by the clinical instructor. Generally, all the respondents from both Zambia and Norway said that the teaching method used at the practical placement area was good. However, half of the respondents from Zambia complained that the groups were too big making it uncomfortable for some students to ask questions and others to lag behind. Some Norwegian respondents on the other hand mentioned that it was easy for them to learn bad habits from nurses who have been in practice for a long time as they are used to doing shortcuts. One student said; *“I don’t want to learn bad habits now.”*

Availability of resources

Availability of resources came out strongly from the Zambian respondents as a factor that enables learning to take place. Some respondents said the clinical instructor must be available all the times to teach procedures to the students and that materials and equipment should be readily available to enable students carry out procedures.

Specialisation of the ward

Specialisation of the practical placement area was a factor cited by a Norwegian respondent who said that she learnt more in a general ward than a specialised ward as she was exposed to a variety of conditions.

iii. How assessment is done on the practical placement area?

The basis of the assessment

The Norwegian respondents said that the assessment of learning on the practical placement area was continuous and feedback was given on a daily basis, in addition they have halfway and final assessment which is graded as either pass or fail. The data revealed that the two assessments are a moment of reflection for the student, mentor and the teacher about how much progress the student has made during the practical placement being assessment. On the other hand, assessment for Zambian students was based on mastery of procedures that they have learnt during that practical placement period.

Biases during assessment

Some respondents from Zambia said that there were some biases in the way assessments were done. One respondent said that;

“During assessment two students can be given two different procedures were one would be required to carry out a simple procedure (nail care) and the other one a complex procedure (wound dressing).”

The other bias cited by three of the Zambian respondents was on the knowledge base for the assessor, they said that all assessors should have uniform knowledge regarding procedures. They suggested that the nurses and clinical instructors who are found on the practical placement area should perform the assessments as they have latest practical information on procedures. However, the Norwegian respondents cited biases related to the knowledge gap between theory and practice. They also said that the assessors should be objective and not assess students based on their appearance e.g. type of makeup worn

by the student. One Norwegian respondent suggested that they should have two mentors to assess them as it is easy for one to be subjective.

5. DISCUSSION

Influence of on curriculum development

The objective of the project was to find out how student nurses in Norway and Zambia learn and are assessed in the practical placement area. Cultural value emphases shape and justify group beliefs, actions and goals (Schwartz, 2004). According to Schwartz's mapping and interpreting cultural differences; Zambia and Norway are located on opposing poles. Norway falls under egalitarianism. None the less Zambia does not appear on the map, but Zimbabwe a neighbouring country is present. Zambia and Zimbabwe share some similarities in culture regarding hierarchy. The curriculums for Zambia and Norway are to some extent a reflection of these cultural values. The Norwegian nursing curriculum seems to be driven by an egalitarian cultural value orientation. This is reflected in the underlying philosophy as outlined in the objectives of the curriculum which puts an emphasis on qualifying an independent, responsible, change oriented, patient centred nurses who has the ability and willingness to practice in a conscious and reflective manner. The curriculum also emphasises that the students shall develop a holistic view of human beings, show respect for human integrity and rights and safeguard the user's autonomy. The Zambian curriculum on the other hand seems to be influenced by a hierarchical value orientation as it emphasises on qualifying a self directed, analytical knowledgeable and skilful nurse. The emphasis on hierarchy and authority can be noted from one of the courses taught in the first year called professional practice. In this course students are taught on the distribution of power and authority in the health care system at large among other things.

Having critically analysed the two curriculums for nursing education in the two countries under study, the authors feel that at glance the Zambian curriculum is more oriented to behaviourist learning theory while the Norwegian curriculum is more oriented to the situated learning theory (GNC, 2004, MER, 2004).

How students learn

The ability to learn is the most outstanding human characteristic, learning occurs in many ways and several factors surround the phenomenon. To understand how learning takes place, it is important to critically analyse what happens to the individual. The results showed that all the respondents from Zambia and Norway learn through observing and practicing. This initial phase of how students learn during practical placement may be

seen from the stand point of behaviourist learning theory which simply states that learning is the acquisition of new behaviour, this method of learning is called conditioning. During practical placement students observe first before they practice. Observation is the initial learning phase which is called acquisition phase. They also said the more they practice the more they retain acquired skills (Pritchard, 2005). According to behaviourists, operant conditioning is the most important type of learning which involves reinforcing behaviour by rewarding it. The results showed that the more tasks and responsibilities students are given the more they practiced and learnt. The tasks and responsibilities serve as reinforcement to the behaviour learnt. The other reinforcement cited in the data was that after gaining confidence the student was able to practice independently. However critics of behaviourist theory say that it is not adequate as it gives little importance to mental activity (Pritchard, 2005). This poses a challenge to nurse educators regarding assessment, as behaviourists define learning as a change of behaviour as a result of practice. For the behaviourist you assess the observable behaviour without putting into consideration mental activity or concept formation.

Constructivist learning theory presupposes that learning is created in the learner. This learning is mediated by several phenomena one of them is observing (Pritchard, 2005). In the same vein, student nurses observe how nursing care is done by the experts in the practical placement and later recreate knowledge based on their own understanding. The practicing of the observed procedures and nursing skills is could be the recreation of this knowledge.

Factors that enhance learning

The results also showed that there are factors that enhance learning on the practical placement area. A friendly relationship between students and qualified nurses on the practical placement was one of the factors cited by all students from both countries. In situated learning theory, the authors argue that a central aspect of learning is that people are social beings, social interaction is critical as learners become involved in a community of practice. (Lava and Wenger, 1991). The notion of interaction is also emphasised by constructivists who argue that the social environment is critical as the interactions transform the learning experience. Social interaction plays a role in cognition, the learners thinking is changed by the interactions with their social world (Schunk, 2009). According to Lava, (1991) there's a relational interdependence of agent and world, activity,

meaning, cognition, knowing and learning, meaning is ultimately what learning produces. It emphasises the inherently socially negotiated quality of meaning and the concerned character of the thought and action of the persons engaged in activity. Situated learning theory emphasises that the novice and the expert are dependent on each other in order for the novice to learn and the expert to carry on the community of practice. Therefore a friendly relationship between students and qualified nurses is necessary to enhance learning. This is also in line with the findings of Levett et al (2009); in their research the results demonstrated that a positive staff-student relationship is crucial for students to feel accepted, included and valued.

The results of our study also revealed that when students are treated as part of the team and nurses expect to learn from students, then this enhanced learning. The Zambian students said that lack of a relationship hindered learning. During assessment an approachable assessor was preferred as student was able to express self. These findings are also in line with Levett et al (2009)'s results which indicated that when students are made welcome they are highly motivated to learn, the staff's receptiveness and approachability affected students sense of wellbeing, capacity and motivation to learn. They further reported that when students were given the opportunity to work autonomously and demonstrate their ability their confidence was enhanced. Our results are also in line with constructivist theory which says that many processes such cognitive activity, instructional factors and social cultural factors interact to produce learning (Schunk, 2009). Neulip (2006) says that the context in which communication occurs is important for interaction. Zambia is considered to be more of a high context culture where hierarchy and non verbal communication are utilised this could affect the learning process.

The practical placement is the learning environment for the student nurses for clinical education; it is situated (Benner et al 2010). According to Benner et al (2010), students in the clinical placement learn through experience with actual patients in a variety of contexts which is referred to as situated learning. In line with situated learning theory, during practical placement student nurses become a part of a community of practice which embodies certain beliefs and behaviours. It is important that the environment is authentic, as the theorists in situated learning say that learning rather than being deliberate is usually unintentional (Pritchard, 2009). Therefore students may not only learn desired

behaviours during practical placement but also the undesired behaviour that they observe in the qualified nurses.

According to situated learning theory, effectiveness of learning is influenced by the context in which learning takes place. Culture being one of the context in which learning takes place influences learning. The results showed that distribution of hierarchy and authority influences the learning process. According to Neulip, (2006) in low context cultures education is learner centred.

Assessment

The other objective of our project was to find out how student nurses are assessed on the practical placement area. According to the national curriculum regulations of the Norwegian ministry of education and research the objectives of practical assessment is to ensure that students during their study acquire the knowledge and qualifications outlined in the objectives of the nursing programme (MER, 2004). The assessment is competence based. The results revealed that they were assessed differently, and students said the way they were assessed was 'okay' but they cited biases concerning assessment. The Norwegian students cited biases such as subjectivity of the assessor. On the hand, the Zambian student nurses' assessment was skill based. Zambian student nurses cited biases such as knowledge base of assessor and validity and reliability of method of assessment. This finding was in line with the results of a research done in Indonesia. According to Wanda (2007), assessment of student nurses during practical placement in Indonesia was skill based, and that passing or failing a student would be based on the assessors' relationship with students or level of knowledge of the assessor. There has been a shift on the international scene of the nursing fraternity from skill based assessment to competence based.

According to Redfern et al (2002), a multi method approach to assessment enhances validity and ensures comprehensive assessment of the complex repertoire of skills required for students in nursing. This is in line with what Mueller, (2004) says in authentic assessment. Authentic assessment examines what a person has learnt by assessing his/her collective abilities. In authentic assessment, students are assessed according to specific criteria that are known to them in advance. It is important to use both formative and summative assessment, as formative assessment is diagnostic and aids

learning. Summative assessment should be designed to measure if the intended outcomes have been achieved at the end of the learning sequence in line with the curriculum or objectives (Tennant et al, 2010). It is important how clinical educators utilise the information they gather during assessment to plan for future teaching and assessment in the practical placement area.

Method of Teaching on the Practical placement area

The results revealed that Norwegian student nurses are taught individually by their mentor while the Zambian student nurses are taught as a group by the clinical instructor. Culture influences how people interact (Neulip, 2006), and at a glance culture may have influenced the different types of teaching methods employed on the practical placement area by the two countries as most Norwegians are more individualistic and most Zambians are more collectivistic. According to De Vries et al (2004), in their study of consequences of cultures for health care systems, the culture of a country has to a certain extent an influence over the formulations of health care policies. As much as culture influences most of our policies it is important for educators to critically analyse the methods of teaching employed on the practical placement area considering how the students learn. Zambians are considered to be collectivists and are taught in groups but when it came to actual teaching and learning students complained of learning being hindered and other students lagging behind as the groups were too big. This finding is also in line with a survey by Benner et al conducted in the United States of America, where clinical educators complained that when the groups of students were too big during practical placement it was difficult to have adequate time for each student and to ensure that the students are learning all the concepts. The clinical educators felt that this makes the experience to focus on performing and obtaining skills. They further said that effectively teaching and supervising ten students in a clinical setting is nearly impossible and often hazardous (Benner et al, 2010). Furthermore, Schunck (2009) argues that the traditional method of teaching students in groups does not promote active involvement of learners with content.

6. CONCLUSION

The aim of nursing education across nations is to qualify nurses that are ready and able to meet the challenges in the health care system. Professional nursing in Zambia has been facing a lot of challenges. In the past years there has not been a lot of change in the system of nursing education in Zambia. Nevertheless the health care system has seen a lot of advances in technology, science and disease pattern. Zambia is faced with shortages of manpower especially the nurses despite the many schools of nursing available. The objective of the study was to find out how student nurses in Zambia and Norway learn and are assessed on the practical placement area. The two countries are different in so many ways i.e. socio economically, culture and the disease pattern. Regardless of the differences, the results showed that students from both countries learn in the same way; they first observe and practice.

Observing and practicing are important for learning to take place according to the results. Therefore, the learning environment should be authentic to enable students to learn, as the theorists in situated learning theory assume that learning is unintentional. The Zambian students are taught in groups while Norwegians are taught individually. Considering that observing is the initial phase of learning and is important for effective learning to take place; are the students that are taught in large groups able to observe all the concepts and reconstruct the intended knowledge? For effective learning to take place there should be a good relationship between the nurses and student nurses was cited by all students

Assessment is part and parcel of learning and teaching. Many scholars have suggested that the method of assessment utilised determines how students learn (Tenant et al, 2010). The results revealed that assessment for the Zambian student nurses on the practical placement was based on mastery of procedures, thereby making students to focus on learning nursing procedures and not holistic nursing care.

Limitations of the project

The project revealed some significant findings which other authors have alluded to in their researches. The findings of this project cannot be generalised to the two countries on a broader scale as the sample population was not adequate to represent the study population. The two institutions utilised in the project can consider the findings and plan for further research to gather enough data to help in curriculum development.

Recommendations

1. Assessment tools should correspond to the objective of the nursing curriculum
2. The nurse educators must ensure that students understand the concept of learning to learn.
3. The nurse educators and the qualified nurses should work in collaboration to ensure that the learning environment is authentic and the gap between theory and practice is bridged.
4. The nurse educators in Zambia should reconsider how ward progress assessment is done and find alternative to assessment (evaluation manual) tools currently being used as the author feel that this type assessment makes students to be focused on acquiring skills only.
5. Assessment should be authentic as it determines how student learns.
6. Criteria for choosing mentors should be reconsidered taking into account the learner and responsibilities that a mentor has.

Future research

Since our study focused on the students only, it would be more elaborate to research on the teachers on the practical placement area to gain more insight on learning and teaching on the practical placement. It is important for nurse educators to embark on research on the validity and reliability of the assessment tools used on the practical placement in both countries. Watson et al (2002) conducted a systematic review of literature regarding clinical competence assessment in nursing. The results revealed there's a considerable confusion about the definition of clinical competence and most of the methods used to measure competence have not been developed systematically. Nurse educators should endeavour to carry out research and formulate assessment tools systematically that are evidence based. More research should be done pertaining to bridging the gap between theory and practice.

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