SCHOLARSHIP OF DISCOVERY: ENHANCING A RESEARCH CULTURE IN NURSING COLLEGES

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ABSTRACT

The scholarship of nursing depends on the research culture in institutions. Not all higher education institutions globally expect from diploma prepared nurses to be research trained, but it is expected in the South African and African context. Globalisation and the migration of degree and diploma prepared nurses, should sensitize the global nursing community about the challenges faced when nursing colleges or learning centres, offering diploma programmes, become part of the higher education sphere and need to contribute to the scholarship of discovery. This article reports on strategies that could be implemented in higher education institutions, such as colleges, to enhance the research culture. A qualitative research design was used and data gathered through a nominal group technique with 12 students from different institutions as well as reflection reports from five nurse educators involved in research training and supervision. Participants indicated that the most important aspect that needed to be addressed in nursing education was improved research knowledge for students, nurse educators and research supervisors. Institutions where nurse educators do not have master's degrees should implement strategies to support students and educators in enhancing their research capacities and skills in order to improve the institution's research culture. University nursing schools, which have research mentors, should become role models/mentors to support enhancing a research culture in nursing colleges in South Africa and Africa.

KEYWORDS: nursing colleges, research culture, research supervision, scholarship of discovery

INTRODUCTION AND BACKGROUND

Although institutions of higher education across the globe have unique missions, the commitment to scholarly approaches to nursing education and research creates common ground across the academic nursing fraternity (Edwards et al., 2012). The emphasis

in nursing education is focused on the importance of scholarship in all dimensions: scholarship of discovery, application, integration, and teaching and learning (Glassic, 2000:877), with a heightened focus on the scholarship of discovery (Hubball, Clark & Poole, 2010:119).

In the past, some nursing colleges in South Africa and in Africa did not form part of the higher education sphere and had a more content-based curriculum where all four dimensions of scholarship development were not emphasized. Many nursing colleges felt under the jurisdiction of the Department of Health. Currently research capacity in the Health Sciences, including nursing, has been recognised internationally as important for producing a sound evidence base for decision making in practice (CHSRF, 2008) and therfore all aspects of scholarship development need to be emphasized.

In 1998, the Bayer Commission report challenged US research universities "to make research-based learning a standard of students" college education (Hunter, Laursen & Seymour, 2007:37). This became the standard for all institutions of higher education where students must have the opportunity to participate in faculty-mentored, hands-on research (Hunter et al., 2007:37). The framework of the *White Paper for the Transformation of the Health System in South Africa* (SA National Department of Health, 1997) as well as the Department of Higher Education and Training's Strategic Plan, also focuses on increasing research output and research productivity in South African higher education institutions (RSA Department of Higher Education and Training, 2010).

STATEMENT OF THE RESEARCH PROBLEM

Nursing colleges and private institutions offering a diploma programme in nursing were not always part of the higher education sphere in South Africa (SA Department of Education, 1997). However, all higher education institutions, including those colleges that now form part of higher education, mandate nurse educators to balance teaching with research activities. Nurse educators now have to be mentors who teach research and facilitate and supervise the students through the research process. However, nurse educators feel unprepared for mentoring (Jacobson & Sherrod, 2012: 279) because they generally do not have a research background or a master's qualification (Lhodi, 2012:475). Educators at colleges of nursing have not grown up in a research culture and did not have had any experience in undertaking research projects (Cheetham, 2007), or mentoring or supervising research projects. The challenge therefore is to evaluate, identify and rectify deficiencies in institutions' research culture (McNicholl, Coates & Dynnek, 2008:344), and plan strategies that incorporate students' and educators' perceptions and needs in the development of curricula to enhance their knowledge of research and ultimately to influence the scholarship of discovery in an institution.

AIM

This article reports on strategies that could be implemented in nursing colleges, previously under the jurisdiction of the Department of Health education, to enhance the research culture of an institution.

RESEARCH METHODOLOGY

A descriptive, qualitative research design was used for this research study and data was gathered from October 2012 to March 2013. The data from the students was gathered through a nominal group technique as originally developed by Delbecq and Van de Ven (1972) and from the educators through reflection reports.

Students

The unit of analysis was final-year students registered for a diploma in general nursing at two different nursing colleges. The students' goal was ultimately to register as a professional nurse with the South African Nursing Council. During their final year of study, these students were introduced to research for the first time and were expected to conduct research under the supervision of nurse educators at the colleges. All students were recruited via their educators who acted as gatekeepers. Six students from each college volunteered. These 12 students were invited to form a nominal group. The size of this group was conducive for nominal group discussions as suggested by Delbecq and Van de Ven (1972) as well as Harvey and Holmes (2012:191).

A third college's students were approached to serve as participants for an exploratory interview to test the validity and reliability of the question and the facilitation of the group. The question asked was: What must nurse educators do to enhance a culture of research in nursing colleges? The question was understood by all participants and was left unchanged for the actual data-gathering procedure. English was used as the interview language as it is the preferred medium for instruction in the participating colleges.

Trustworthiness was assured by implementing the principles of dependability, credibility, confirmability and transferability as described by Polit and Beck (2012:583). A dense description of the data gathering process, the use of an expert facilitator to conduct the nominal group as well as the complete data trail that was left, enhanced the above. The purpose of this nominal group was not to generalise findings, but to use this consensus-seeking data-gathering technique (Botma et al., 2010:251) to elicit ideas on enhancing a research culture from the perspective of students in colleges within a similar context.

Ethics approval was granted by the ethics committee, Department of Health Studies, as well as from the review board from the participating colleges. Permission from the college managers was obtained to gain access to the students and the educators whose participation was on a voluntary basis only. Participants were assured about the confidentiality of data and informed that they could withdraw from the study without negative consequences. Participants signed informed consents to participate. An independent expert facilitator, not known to the students, was used to ensure the reliability of data and a welcoming environment was utilized for the participants to put them at ease. The facilitator was experienced in nominal group facilitation and was often utilized as a consultant at a national level.

Educators

A recruitment letter was sent via e-mail to all educators involved in research supervision at the participating colleges. They were requested to write a reflection report on the challenges and opportunities regarding their research supervision. They could voluntarily write a reflection report and participate in the study, or they could just ignore the invitation to participate. Five written reflection reports were received back and a thematic analysis of the written reports was done. To ensure confidentiality and anonymity of the reports, it was received back via an e-mail attachment from the secretary of the specific institution or learning centre.

ANALYSIS

Eleven students eventually participated in the nominal group discussion. The group of students did the analysis of the data during the clarification phase (Botma et al., 2010:252). Thereafter a thematic analysis, according to the steps described by Tesch (in Botma et al., 2010:224), was done on the data received from the reflection reports completed by the educators. Data received from both the educators and the students were collated.

FINDINGS

The participants were homogeneous in that they were all final-year diploma students busy with a research project as a requirement for completing the diploma in nursing. They were heterogeneous in that there were ten females and one male student. This ratio of male to female for the data gathering was representative of the college's male to female student ratio. Using a mix of students from the different colleges should have added to the dependability and confirmability of the data.

Participants received a copy of the question and were given 10 minutes to generate ideas silently. After this, all inputs were obtained using the round robin method. Twenty-two ideas were generated; these were clarified and then grouped by the participants into 13 broad themes. The participating students voted for the five most important themes or suggestions that would, according to them, enhance the research culture in colleges. These five themes are presented in table 1.

Table 1: Themes identified by the nominal group of student participants

THEME	IDEA NUMBER	PARTICIPANTS' RESPONSE/S	PRIORITY	RATE
Knowledge	1. 7. 16. 3.	Make research enjoyable/not a threat We need more knowledge about what to do Give a clear layout of components (headings of research proposal) Better orientation: Show DVD on the research process	1	39
Involvement in research	4. 8. 12.	To be involved in research more often Involve junior students in research Be involved in hospital research projects before own research	2	19
Topics	5.	More interesting topics	3	18
Human resources: Mentors	13. 15. 22.	Mentors for research should be available in hospitals Nurse educators available to students for guidance Mentor (nurse educator) must be a knowledgeable researcher	4	17
Other resources: technological and financial	2. 20.	Internet connections available Financial support for students (e.g. printing)	5	15

Data gathered from the reflection reports from nurse educators are integrated with the findings from the students to provide the report.

Research knowledge

Student participants indicated that the most important aspect that needed to be addressed to enhance the research culture was improved knowledge of research for themselves and their educators. There should thus be a strategy in place to support the educator and student to gain research knowledge. A nurse educator indicated in her reflection report

that she was "*unknowledgeable, incompetent and could not give the necessary guidance to students*". Another educator felt "*powerless, frustrated, negative and very nervous. Theory knowledge is not enough*" to support students and "*this felt like the blind leading the blind …. I really wanted to support my students, but I felt it was impossible leading to my own dislike in research.*"

Involvement in research

Students felt that they should be actively involved in research more often and at earlier stages in their curriculum. One educator supported this by saying that "*all novice researchers should be actively involved in research projects before they conduct their own research*", but emphasized that "*practical experience by the educator is also needed before the educator can support students*". Students also wanted to be "*involved in hospital research projects before (developing their) own research*". Educators supported this strategy by indicating that "*students should form part of research teams in the hospital*".

Research topics

Student participants felt that they would like to choose/select from more interesting topics for research and were supported by the educator who said: "*I would prefer to choose my own topic for research.*"

Research mentoring

Students wanted the mentors or supervisors to be knowledgeable and available to support them, but the educators felt that: "*I had never been involved in the practical part of research and found the actual process and translating the theory into practise very difficult. I was scared, frustrated and negative and found it too difficult. I found resistance from students and know that the guidance from our side was not what it should be.*" Educators suggested that they "*should be supported from the first day and experienced researchers should be involved to mentor*" them. An educator expressed the need for mentoring as "*the only factor that helped to make sense of this excersise was the guidance from the volunteer university mentors. If I can always have the guidance of mentors I can even think I might enjoy research.*"

Research support

Students and educators felt that financial support for students to conduct the research is important. They wanted to be financially supported to get internet access, photo copy

articles and questionnaires. Educators felt that "*students needed to go to internet cafes and do not have the money to pay*". The student and educator participants felt that all of these aspects should be incorporated in strategies developed by the institution to enhance the culture of research in an academic community. "*There should be experienced mentors available, enough time to supervise students should be scheduled, the centre should have enough computers available and students should be taught computer skills prior to conducting research.*"

DISCUSSION

A research culture, probably better described as a culture of research, can be defined as shared values, assumptions, beliefs, rituals and other forms of behaviour with a central focus on research practice and output (Evans, 2007:2). A research culture can be developed by practices that include recognition and rewards for quality research, the identification of models of good research processes as well as administrative support (Schulze, 2008:650).

Nurse educators are poised to be the leaders in teaching evidence-based research (Young et al., 2005:9) by promoting and enhancing a culture of research and supervising students when they conduct research. Globally, professional literature has shown that nurses identify a lack of knowledge and support as a barrier to conducting research (McNicholl et al., 2008:346, 348) and building a culture of research in the nursing profession. This is in congruence with the participants' beliefs in this study.

The participants identified good research knowledge as essential to enhancing a culture of research. Even in institutions where research methodology has been introduced in the modern nursing and midwifery curricula, a lack of knowledge and skills still remains a major barrier to reading/understanding and conducting research (Hundley, 2008:86). The lack of personal experience in conducting research (Hutchinson & Johnston, 2004:306), by both educators and students, inhibits building a research culture in nursing and ultimately impacts negatively on the scholarship of nursing in all dimensions.

The notion of involving students in clinical research, where they can be mentored by other professionals actively involved in research, can increase their knowledge and personal experiences pertaining to research (Kennel et al., 2009:210), consequently enhancing the culture of research. Students should therefore be involved in research, but need to be mentored by a competent educator. In contradiction to the general opinion that expert mentors are needed, Kennel et al. (2009:210) are of the opinion that research mentors who are relatively new researchers, like those in institutions where research had not been part of the curriculum for students, nor within the scope of the educators, are uniquely prepared to integrate nursing students in their own projects. These mentors understand research from the novice's perspective and thus can ensure that the research

comes alive and active (Kennel et al., 2009:210). Participating in research might therefore enhance the culture of research early in the students' nursing careers.

Furthermore, it is clearly stated in research conducted that the topic of research must be important and stimulating to the researcher (Polit & Beck, 2012:73) to stimulate research and enhance a research culture. If students are forced to participate in a study, in which they have no interest, it becomes a challenge to motivate them. Thus, it is of the utmost importance that the researchers, both the student and the nurse educator (where the educator also is a novice researcher), are interested in the topic and enjoy to learn more about research (Stephens et al., 2012:439).

Participants in this study identified that, in order to enhance the research culture, they needed support from the academic institution and from available and knowledgeable mentors or educators who could supervise them. A research culture can only be developed if there is a culture of research in an institution, which implies that there has to be researchers or research leaders (Evans, 2007:5) available to do research and to supervise students. The role of the research leader becomes vital in developing a culture of research. In institutions such as nursing colleges where educators might not have obtained degrees but diplomas, students might experience a lack of research role models and supervisors as a significant barrier to developing their skills in research and obstructing the development of a culture of research. The appointment of researchers to strengthen a research culture is important (Kennel et al., 2009:2010). The institution should not only foster the development of nurse researchers for mentorship and guidance of students, but should also have an institutional strategy that includes rewards for research outputs, funding and opportunities for professional development for faculty (Salazar-Clemena & Almonte-Acosta, 2007:2, 9,11). A lack of fiscal support such as funding for research projects or the availability of internet facilities can hinder the development of a research culture in an institution (Veeramah, 2007) and should be addressed in countries where institutions expect a culture of research in the absence of graduate educators, or educators with no research experience.

CONCLUSION

In developing countries and in countries such as South Africa, where only 20% of the professional nurses have obtained degrees (Nelson Mandela Metropolitan University, 2012), enhancing and developing a culture of research to ensure scholarship development in the nursing profession become a challenge. In educational institutions in South Africa, where many nurse educators do not have degrees and might lack research skills and experience, institutions should develop initiatives to support educators and students learning to conduct research that informs their practice and contributes to enhancing nursing care. The scholarship of nursing, with the current emphasis on the scholarship of discovery, is vital for the advancement of the nursing profession in the African context.

However, institutions where nurse educators do not have degrees should implement strategies to support students and educators to enhance their research capacities and skills and the institution's research culture. It is important that the voice of the student should also be heard when strategies to enhance a culture of research are developed.

RECOMMENDATIONS

University schools of nursing that offer degree programmes to nurses and that have suitably qualified educators with research experience should support efforts for these educators to become important role models/mentors to support and assist in enhancing a research culture in nursing colleges in South Africa and Africa.

LIMITATIONS

One nominal group discussion was conducted with willing student participants from different colleges and five educators completed reflection reports. The study results can therefore not be generalised, but can be transferred to similar context.

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