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Why should nursing students study research and its methods?

Heather Ladd, BN Student, Year 2
Tasmanian School of Nursing
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Abstract

It is the students of nursing who will lead their discipline into an era of scientific advancement and professionalism (Radjenovic & Chally 1998, p.26). Therefore, it will be argued that, research and its methods should be taught to nursing students. There are a multitude of other reasons why research and its methods should be taught to students, some of which will be looked at in this paper. These reasons include; improving quality of client care, validating alternative medicines which enables client choice, allowing students to learn research processes in an environment which is safe, improving relations between the fields of nursing and medicine, allowing better utilization or decreasing costs to community health funding, and finally to allow nursing to continue to progress, into the future, as a profession.

Research is an endeavor to find solutions to problems (Treece & Treece 1982, p.3). To place a more precise definition on the term O'Toole states 'Research [is] the systematic, rigorous investigation of a situation or problem in order to generate new knowledge or validate existing knowledge' (O'Toole 1997, p.1397). Regardless of which definition chosen, research has the ability to join the processes of theory, education and practice. Consequently, theoretical ideas, which have been proven by the process of research, can then be used in practice. Students have the capacity to learn the foundations of research and its methods. Students are not only capable of learning to comprehend research processes but also their practical value. These skills can also teach a student to become a critical user of research outcomes and assess with confidence which research data is applicable and which is not as well the ability to utilize it effectively (Beanland, Schneider, Lobionda-Wood & Haber 1999, pp.5-6).

There are two types of research or research methods which are generally applied. The first type of research method is the science/quantitative method. This utilizes the processes of induction (theory-building) and deduction (theory-testing). This is a process, which ignores the subjective such as 'ideas, intentions and emotions' and encourages the objective, such as 'numbers, percentages and statistics'. This teaches a student the importance of measuring elements, which incorporates description, correlation, explanation and predication. Quantitative research can improve nursing knowledge by validating nursing as a 'scientific' discipline (Roberts & Taylor 1998, pp.13-14). The second predominant method in research, which is equally important, is the qualitative/interpretive method. This is a more subjective process which is interested in 'ideas, intentions and emotions', with human experience being integral. This teaches students the value of individual experience and the capacity for knowledge to change, depending on the environment and circumstances in which the study is conducted. Qualitative research can improve individual client care. (Roberts & Taylor 1998, pp.15-16).

Historically, nursing has always been working towards becoming a more research-based discipline, albeit slowly (Abbott & Sapsford 1998, p.165). There were and still are many issues attached to this quest. Nursing was, and still is to a certain extent, dominated by women. Nursing research could only progress as more women gained independence and became educated (Treece & Treece 1982, p.16). Consequently, as women gained their identity, so to did nursing and nursing research. One such woman, who eventually became a major icon of nursing, was Florence Nightingale. Ms Nightingale was a strong advocate for research and the quest for new facts, with her main objective being to improve the quality of client care (Treece & Treece 1982, p.16). Today, research is not only being performed in order to improve client care but also to improve the credibility of nurses as professionals (Cleverly 1998, p.267). A report was released in 1972, titled the Briggs report, this report suggested that in order for nurses to become professionals, research was imperative (Smith & Hunt 1997, p.xi). Another important historical aspect to consider, is, if nurses are to continue to act as patient advocates, negotiating between the client and the doctor and the client and the system, the need for increasing credibility is essential (Bonawit 1989, p.169).

Research is an integral part of any discipline. If nursing is to be taken seriously as a discipline, research needs to be continued and advanced. Often, research is performed on issues, which are already familiar to the researcher and to the field of nursing (Treece & Treece 1982, pp.3-15). As Cleverly (1998) stated when discussing the importance of research and higher education: [it is important] 'to broaden our concept of research and encourage individuals to develop the talents they already have' (Cleverly 1998, p.270). Consequently, research gives nurses a basis to revise and redefine processes already in practice as well as an enabling them to make professional decisions. As the discipline of nursing grows so to will the need for new and improved research methods and techniques. Thus, as students, it is necessary to learn the foundations of research and be aware of their implications in order to build on them (Treece & Treece 1982, pp.3-15). A study performed by K. Parahoo, in Northern Island, on research utilization by practicing nurses demonstrated that those nurses who had studied a degree course, which incorporated research methodology, were 17.4% more likely to use research in practice than those who did not study a degree orientated course. An overall total of 89.2% of nurses believe that 'research expertise is of value to the nurse in clinical practice' (Parahoo 1997, p.287).

The discipline of nursing incorporates education, theory and practice. All of these processes are connected by research. Research is the process by which the nursing knowledge base increases and becomes tested. Students in an educational environment can be taught all of these processes. Education allows students to learn many different theories and to analyze them in comparison to any research findings that may be available to them. Student nurses do not necessarily need to become researchers themselves, but it is important that they are capable of critically analyzing research data and utilizing it in the appropriate situation (LoBiondo-Wood & Haber 1990, p.5).

Nurses with Bachelor of Nursing degrees are expected to be consumers of research, that is, they must understand each step of the research process and its relationship to every other step. Such understanding must be linked with a clear idea about the standards of satisfactory research. This comprehension is necessary when critically reading and understanding research reports, thereby determining the validity and merit of reported studies (Beanland, Schneider, LoBiondo-Wood & Haber 1998, p.7).

This process has developed, and in the last few years encouraged, the practice of evidence based nursing. Consequently, proven scientific research is now becoming an integral part of client care delivery (Beanland, Schneider, LoBiondo-Wood & Haber 1998, p.7).

Nursing in order to be of maximum benefit must be suitable to the community it assists (Beanland, Schneider, LoBiondo-Wood & Haber 1999, p.4). Hence, when undertaking research it is important that the consumer is considered to be a significant aspect of the study, as learning skills and instigating interventions that are useless is a waste of time and resources (Treece & Treece 1982, p.15). Lynaugh & Fagin (1988) would argue that nursing care should be focused on the client, the client's family or the community as opposed to the illnesses and diseases involved (Lynaugh & Fagin 1988 in National Institute of Nursing Research 1999, p.1). Nurses are well placed to perform clinical based research as they often spend long periods of time with clients. If students have the ability to be part of a research team in clinical practice, then they can see the outcomes of the work they do and are therefore more likely to become interested in research and research utilization (Treece & Treece 1982, p. 15-25). As Parahoo (1998) once again demonstrates 85.7% of nurses believe that 'research often leads to real practical advances in nursing care'. It has been proven, by Diane Storer-Brown, that students who have been taught the importance of research and its methodology are the ones most likely to utilize it in practice (Storer-Brown 1997, p.260).

One such clinical field, which is likely to require significant research, by nurses and nursing students is that of alternative medicine. Clients are increasingly demanding these types of therapies (Ching 1998, p.173). Ching's (1998) study, in Sydney, demonstrated that 50% of the participants (the general public) in its survey had used some form of alternative health care. Some of these therapies include reflexology, massage and therapeutic touch. This data would suggest that not only is it important for nurses to research these therapies but also students as they are/or will be the ones who perform some of the skills requested. It is important before using these methods of alternative healing to validate their usefulness. Another important aspect associated with the implementation of alternative health practices is that often, limited training facilities are provided in practice, some nurses may be performing these skills untrained. Therefore, to ensure safety, 'research, education and policy development' is necessary, particularly for students (Ching 1998, pp.173-176)

Participating in established research projects significantly improves a student's ability to appreciate and understand the need for research with in the profession of nursing (Howard, Baeuchesne, Shea & Meservey 1996, p.34). Nowhere better than in real life situations can the ethics of subjects' rights and scientific integrity be clarified. Likewise, valuation of the research project itself, the enthusiasm for it, and the quest for answers beyond what is known, must be experienced (Gueldner, Clayton, Bramlett & Boettcher 1993, p.18).

Under these conditions, participating in an established project allows students somewhere to learn and gain experience in a safe environment (Howard, Beauchesne, Shea & Meservey 1996, p.34). The student may take on the role of research assistant, being assigned tasks such as, gathering relevant statistics, consulting with other disciplines, helping to write a grant and interviewing. Although students play a significant role with in the project, they are not fully responsible and therefore they have the opportunity to have some one to consult and learn from as problems arise. Thus the student can slowly take on the role of researcher as well as its responsibilities like deadlines and the need for accuracy without the pressure of being solely responsible. The student can also witness the consequences of their research project if and when it is implemented (Howard, Beauchesne, Shea & Meservey 1996, p.34)

A good example of this is a research project conducted in the United States of America, incorporating the skills of both student nurses and student medics. It is important to remember that one of the main focuses of health care is the maintenance and improvement of health. It would therefore seem logical, in some research projects, to utilize the individual skills of both disciplines. A research project was undertaken at the University of Colorado, Denver, USA, combining The School of Nursing and The School of Medicine. The predominant aims of the project were to improve department development, sharing knowledge between the departments and to encourage interdisciplinary teamwork between the students (Smith, Barton & Baxter 1996, pp. 27-29).

The outcomes of this project were significant, and demonstrated that the majority of students enjoyed discussing similar topics with students from other disciplines and valued each other's opinions. Students also appreciated the informal environment, the appreciation given to them from other disciplines for their skills and also being exposed to techniques from other disciplines. Of particular benefit to the nursing students was seeing some of their own researchers successfully presenting results and arguing issues with some of their future medical colleagues. Finally, both nursing students and medical students could appreciate the role both disciplines could have on a research team (Smith, Barton & Baxter 1996, p.29).

. In order to move forward into the future, nursing research needs to move on from the past. Research in the past has focused on what nurses did for their clients (Leininger 1985, p.31). Research of the future needs to focus more on constructing a 'unique scientific body of knowledge', which any discipline requires in order to be viewed as a discipline (LoBiondo-Wood & Haber 1986, pp.ix-13). It is also imperative that the research performed becomes the basis for forming and directing 'theory-based' nursing practice. This will create a directive in nursing research prioritizing particular issues. Thus, consumer needs of 'cost, quality, availability and accessibility' of health services will be addressed. This process should start from the very beginning of the nurse's career, as a student. Students need to be introduced to the methodology of research, to be able to understand and analyze any research documentation presented to them and more importantly to be capable of implementing appropriate research (LoBiondo-Wood & Haber 1986, pp.ix-13).

This paper has shown that nursing students should learn research and its methods. There are a multitude of reasons why this should happen. Some of which include increasing the professionalism of nursing as a discipline, improving the quality of nursing care to the community, validating the use of alternative medicines and strengthening the links between other disciplines in the nursing students future practice. It is also important to remember that research is not only about producing new knowledge but also about building on and improving on the knowledge that nurses and students already have. It is therefore important that students learn, through education, appropriate theories, which will create a solid foundation for their future practice and enable them to apply this knowledge in practice. These foundations are not only useful for student nurses who are anticipating becoming future researchers but also as nurses, who will be implementing research findings in practice, establishing evidence based practice. Being able to critique research findings allows a nurse practitioner and a student to differentiate between successful and unsuccessful studies before implementing them. This not only has positive ramifications for patient care, cost control and efficiency but also for the enhancement of nursing credibility as a profession and the student nurse's confidence.

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