

ORIGINAL RESEARCH

Exploring registered nurses' attitudes towards postgraduate education in Australia: An overview of the literature

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Abstract

Background: Nursing education is designed to prepare competent nurses to meet the current and future health care needs of society. The nursing profession responds to changes in health care needs by exploring new methods for providing care, by changing educational emphases, and by establishing practice standards in new areas.

Aim: This literature overview examines issues relating to postgraduate education for specialty nursing practice.

Methods: For this literature review, the following computerised databases: CINAHL, PubMed, Medline, EMBASE, Scopus, ERIC, BERA, Cochrane and PsycINFO were used to identify journal articles, books and book chapters using key search terms in various combinations. Whilst there was no time limit imposed upon this search, a guiding evaluation framework and specific criteria did necessarily and purposefully de-limit the review.

Results: As this review sought to examine registered nurses' attitudes towards postgraduate education for specialty practice, the literature search was informed by studies that assessed only participants' acquisition of knowledge and skills as well as changes in attitudes and behaviours. The articles and reports extracted through the initial literature search, and subjected to the exclusion criteria, were then reviewed and categorised according to the three themes developed from the modification to Barr *et al.*'s Evaluative Framework.

Conclusions: There are a number of issues associated with registered nurses' attitudes to postgraduate education for specialty practice. The literature provides some insight into the benefits they perceive as accruing from such study.

Key words

Registered nurses, Postgraduate education, Specialty practice

1 Introduction

Nursing education is designed to prepare competent nurses to meet the current and future health care needs of society^[2]. Changes to nursing education, especially at postgraduate level, will therefore likely be influenced by the on-going developments in healthcare and socio-economic factors^[3,4].

The transfer of Australian postgraduate specialty nursing education from hospitals to the tertiary (higher education) sector took place in the late-1990s^[5]. Postgraduate education in nursing has continued to grow over the years but the benefits to students, employers, patients and overall impact on practice remain unclear^[3, 6, 7].

According to Larson^[8], the one central function of professions (or their counterparts) in most advanced societies was that of “organising the acquisition and certification of expertise in broad functional areas, on the basis of formal educational qualifications held by individuals”. To be a professional involves the educational process of becoming one and to undertake postgraduate courses in order to remain one^[9]. The focus of this review is on postgraduate education for specialty nursing practice rather than for continuing competence or professional development more broadly.

The purpose of this literature review is to provide an overview of issues relating to postgraduate education for specialty practice, in particular the effect of the experience of postgraduate education on registered nurses’ attitudes towards the necessity of postgraduate education for specialty practice. It also identifies the gaps in research that need to be addressed in order to develop a knowledge bases about registered nurses’ attitudes towards postgraduate education for specialty nursing practice.

2 Subjects and methods

Computerised databases: CINAHL, PubMed, Medline, EMBASE, Scopus, ERIC, BERA, Cochrane and PsycINFO were used to identify journal articles, books and book chapters using key search terms in various combinations (see Table 1).

Whilst there was no time limit imposed upon this search, a guiding evaluation framework and specific criteria did necessarily and purposefully de-limit the review. This boundary setting for the review is explained below and is wholly consistent with the review’s aim.

Table 1. Key Search Terms

<p>Search terms:</p> <ul style="list-style-type: none"> • Nurs • Post-graduate education • Postgraduate education • Post graduate education • Post basic education • Post-basic education • Post registration nurs education • Continuing education • Continuing professional education • Continuing professional development • Masters • Doctora • Post doctora • Special • Specialty Nurs education • Specialty Nurs • Outcome • Impact • Benefits

This search focused on postgraduate education leading to recognised academic awards such as postgraduate certificate or diploma, master’s and doctoral education programs. Continuing professional development programs and in-service

programs were excluded. However, papers with the key terms "Continuing education", "Continuing professional education" and "Continuing professional development" were carefully scrutinised as these were used interchangeably and their meanings were not always clear. In some articles, this was interpreted as post-registration and postgraduate education delivered by higher education institutes and in these cases; the articles were included in the review.

The search was also broadened to include "grey" literature as well as using internet search engines, for example Google Scholar, to identify key words in reports. This was followed by a literature search of relevant references in the already extracted studies, which were then retrieved and included in the literature review if relevant. The primary themes deduced from the guiding framework and additional themes identified from the review are to inform the content of an instrument to explore registered nurses' attitudes towards postgraduate education and speciality practice.

The literature search was guided by the inclusion and exclusion criteria set out in Table 2.

Table 2. Inclusion and Exclusion Criteria

Inclusion criteria	Exclusion criteria
"Continuing professional education", "continuing professional development" and "continuing education" studies which include Postgraduate education delivered by higher education institutes	"Continuing professional education", "continuing professional education" and "continuing education" where terms are not clearly identified and studies include in-service training and hospital training Studies that explore post- registration education that awards an undergraduate degree upon completion

An Evaluative Framework, which examines six different types of outcomes for Inter Professional Education ^[1] (see Table 3), was used to guide this literature review. Although Barr *et al.* ^[1] focused on inter professional education (IPE), the conceptual framework was the most robust identified in the search. Furthermore, the decision to use this framework was informed by a similar approach adopted by other studies that examined evaluation of education ^[3, 10].

Table 3. Barr *et al.* 's (1999) Evaluative Framework

<ul style="list-style-type: none"> • Learner's reaction- the learners' views of their learning experience and satisfaction with their training and education • Changes in attitudes and perceptions- changes in attitudes and perceptions towards patients and carers, their needs, circumstances, care and treatment • Acquisition of knowledge and skills- the acquisition of concepts, procedures and principles of working with specific patient groups, and the acquisition of critical thinking and problem solving, intervention skills, and team working skills • Changes in behaviour- implementing learning in the workplace, as a result of changes in attitudes and perceptions, or the application of newly acquired knowledge and skills • Changes in organisational practice- wider changes in health care delivery • Benefits to patients and carers- improvement to the health and well-being of patients and carers

As this study aims to explore registered nurses' attitudes towards postgraduate education for specialty practice and facilitators/challenges to postgraduate education, Barr *et al.* 's ^[1] Evaluative Framework was modified (see Table 4). Thus, the literature search was informed by studies that assessed only participants' acquisition of knowledge and skills as well as changes in attitudes and behaviours. Studies outside the parameters noted above were excluded from the review.

Table 4. Modified Barr *et al.* 's ^[1] Evaluative Framework

<ul style="list-style-type: none"> • Changes in attitudes and perceptions- positive and negative changes in attitudes from post graduate education, including attitudes to post graduate education as a pre-requisite for specialty practice and intention to remain in nursing • Acquisition of knowledge and skills- includes outcomes of post graduate education on knowledge and skills, including research skills • Changes in behaviour- changes in professional practice following post graduate education
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The articles and reports extracted through the initial literature search, and subjected to the exclusion criteria set out in Table 2, were then reviewed and categorised according to the three themes developed from the modification to Barr *et al.*'s^[1] Evaluative Framework (see Table 4). This reduced the volume of the papers from 176 to 59.

3 Results

The consequence of the search and review strategies described above meant that the literature developed into three core themes: changes in attitudes, acquisition of knowledge and skills, and changes in behaviour. It should be noted that the three themes are not mutually exclusive. For example, changes in attitudes such as increased confidence often depend on increased knowledge and skills, and changes in behaviour are often based on both changes attitudes and increased knowledge or skill.

Theme 1: Changes in attitudes

This section of the literature review discusses the changes in attitudes of registered nurses following postgraduate education. This theme incorporates changes in attitudes to nursing, confidence and commitment based on their participation in postgraduate education, as well as nurses' beliefs about the value of postgraduate education for specialist practice. While generally reporting positive changes in attitudes towards education and practice, a few studies reported negative attitudes.

In a study that explores a postgraduate critical care course, students reported a change in attitudes to nursing, stating that they have a 'much wider view of the whole picture' in critical care nursing^[11]. A similar change is reported by Pelletier *et al.*^[12] who found that nurses felt that postgraduate education expanded their outlook on nursing.

Increased confidence is thought to greatly influence a person's ability to perform satisfactorily at work^[13]. In a descriptive phenomenological study using focus groups to obtain data about the perceptions, values and feelings from a group of 12 students enrolled in postgraduate certificate in Critical Care Nursing, many of the participants reported increased confidence from completing the course as well as feeling more assertive^[11]. Hardwick and Jordan^[14] studied a group of nurses enrolled in the Masters level program aiming to identify how their practice had changed as a result of knowledge and skill acquired from the course. Although only 17 out of 25 responded, the finding was consistent with a previous study on postgraduate education^[15] demonstrating nurses felt more confident about their professional contribution to patient care with the use of graduate knowledge^[16].

Wood^[17] also reported nurses' increase in confidence and their perception that they were better able to challenge practice. Participants in a number of other studies have also reported that postgraduate education enables them to challenge and accept challenges in practice^[18, 19]. Apart from the increase in knowledge and skills and changes in practice noted above, many studies have quoted career advancement^[7, 16, 20, 21] as one of the reasons that nurses undertake postgraduate education. Similarly, in interviews with a group of registered nurses enrolled in a master degree program, it was found that they believed the degree would increase credibility in the employment setting^[22].

On the other hand, Pelletier *et al.*^[21] identified a small number of students who reported a reduction in self-esteem. Pelletier *et al.*^[21] suggested that these students may have been older, or may not have studied for a number of years or may have held senior positions. Pelletier *et al.*^[21] further suggested that senior nurses may have felt that they lose 'seniority status' when they are studying with junior staff. In a qualitative study of stressors experienced by 15 critical care nursing students, Taylor *et al.*^[23] reported that students were stressed by the 'conflicting aspects of their roles' as well as by the content covered in the course.

Rassool and Oyefeso^[24] surveyed a group of 46 nurses enrolled in postgraduate diploma in addictive behaviour. The findings demonstrate that the students perceived an improvement in attitude based on the post-course questionnaire. This

finding corresponds with an earlier North American study by Hagemaster, Handley, Plumlee, Sullivan and Stanley^[25] which reported on change of attitude towards substance abuse as a result of the postgraduate education.

Watson and Wells^[22] found that a group of registered nurses enrolled in a master degree program reported that the postgraduate education increased their ability for autonomous nursing practice. Two studies of critical care nurses^[11, 26] found that postgraduate education gave them work autonomy which increased their job satisfaction.

Out of 12 studies that specifically reported on the attitude of registered nurses to postgraduate education being a pre-requisite for specialty nursing practice, only two (2) studies^[7, 16] reported that nurses believed that having postgraduate qualification is not a necessary aspect of competent practice.

Theme 2: Acquisition in knowledge and skills

In this second section of the literature review, outcomes of the postgraduate education for knowledge and skill acquisition are explored across arrange of specialty areas including cardiac, critical care, accident and emergency, paediatrics, palliative care and addictive behaviour as well as postgraduate courses where the specialty was not specified.

It should be noted that not only are there studies showing increases in knowledge and skills as outcomes of postgraduate education, there is also professional support for the importance of postgraduate education^[27, 28]. A national Delphi study of Australian cardiac educators and clinicians clearly identified that inadequate or insufficient educational preparation were two of the many reasons that raised concerns about the lack of focus on the quality of care issues^[29].

A number of studies indicate the main reason for undertaking postgraduate education is improvement of professional knowledge^[13, 16, 20, 30]. Carlisle^[31] also identifies improving knowledge and skills as an attraction for many to study and gain postgraduate qualification.

Armstrong and Adam^[11] explored the impact of a postgraduate certificate in critical care nursing on nursing knowledge using a descriptive phenomenological study. The students reported that the course had added to their knowledge of management, leadership and teaching as well as the clinical skills in the speciality. Johnson and Copnell^[16] reported that the majority (64%) of graduates of a paediatric postgraduate course identified the ability to link theory to practice and an increase in self-confidence presumably from additional knowledge and experience as being a benefit of undertaking the course.

Two (2) studies^[24, 32] done on registered nurses who has completed postgraduate qualification reported a high correlation between knowledge and quality of care which, according Adriaansen *et al.*^[32] could indicate that there was an increase in the actual skills of the registered nurses who took the course.

There appears to be a positive relationship between postgraduate education and practice^[14, 15, 18, 33-35]. A majority of participants in a study done in New Zealand identified improvement in their nursing skills which benefit the clients due to postgraduate education^[36]. These participants described clients in the twenty first century as 'well read and better informed' and they felt they 'owed it to their clients' to provide quality and up-to-date information^[36].

Research has also found that students in postgraduate courses have reported a high correlation between knowledge and quality of care^[32]; an improvement in knowledge acquisition and skills^[24] and improvement in their nursing skills which benefit the clients^[36].

Nevertheless, increased skills obtained from postgraduate education were not always seen to be sufficient. Johnson and Copnell^[16] surveyed 131 nurses with postgraduate diplomas in paediatric nursing, out of which 8% felt the course had not adequately prepared them to work in the clinical area.

Ewens, Howkins and McClure^[37] explored the experience of 21 newly qualified community nurses, one year in practice to establish if the specialist course prepared them for the reality of practice. Significant findings of that study were that many felt unprepared for the 'real world' of practice especially work place demands.

Specific clinical skills such as triage decisions, critical thinking, communication, use of research, and interprofessional collaboration, as well as the more generic autonomous practice, professional development and broadening or deepening of knowledge, were also reported to be improved by postgraduate education. A correlational design study using survey methods to identify relationships between triage nurses' decisions on triage category allocation and the type and length of nursing experience and the level of educational preparation of triage nurses showed a positive correlation between triage decisions and qualifications^[38]. This notion supports findings by del Bueno^[39] who stated that educational preparation is positively correlated with acceptable decision-making and that nurses with higher educational preparation had a higher incidence of correct decisions. Holl^[40] also stated that critical thinking ability and decision making were better in nurses who had a higher standard of education. However, according to Girot^[41], while it is believed that critical thinking, clinical decision making and problem solving can be improved through postgraduate education; research has not identified significant differences in critical thinking in practice for students at different stages of their studies. On the other hand, Girot^[41] did find a significant improvement in decision making skills as a result of postgraduate education. Considine *et al.*^[38] also suggested that education in these skills is a more adequate preparation for clinical practice than simply imparting specific knowledge about specialist emergency nursing.

Postgraduate study has also been reported by participants to improve their communication skills^[15, 42, 43] and to increase the research base of their study^[11]. Registered nurses have reported that participation in postgraduate education broadens their knowledge base^[21], enhances their ability to collaborate inter-professionally^[44] and contributes positively to their professional and personal development^[45, 46]. A group of registered nurses enrolled in a master degree program in an unspecified specialty area, reported that they believed the degree would give greater depth of knowledge in the specialty area^[22].

Most of the studies that explored nurses' knowledge and skills are based on interviews and reports, not on actual measurement of change. The quantum of the acquisition of knowledge and skill from postgraduate education is difficult to measure. Similarly it would seem that the effects of postgraduate education on actual practice are difficult to quantify or to generalise. However, the themes that emerged from most of the studies seemed consistent and there is therefore scope to uncover the extent to which the knowledge and skills gained from postgraduate education are integrated into practice demonstrated through changes in clinical behaviour.

Theme 3: Changes in behaviour

This section of the literature review explores the changes and improvement in practice that occurs as a result of postgraduate education. While it is often assumed that increased knowledge, and skills and attitudinal change will result from postgraduate studies, it is recognised that these do not automatically translate into behaviour changes in practice^[47]. It is common to try to measure the impact of education on an individual personally or professionally, but it is more difficult to try to quantify any impact on their care delivery behaviour^[33].

It has been highlighted that nurses who undertake postgraduate degrees in nursing benefit the profession in the sense that they acquire a broader, more questioning approach to their responsibilities; the care they provide is research based and they are better able to support the new graduate entrant into the profession^[48]. Additionally, registered nurses have reported that their expectations for their own practice had increased following study^[23].

Findings from an Irish study on postgraduate nursing programs^[42] supported earlier findings^[46, 49, 50] of nurses who believed they were more questioning and interested in their clinical practice following graduation as well as more likely to share new found knowledge with fellow nurses.

The application of learning for the benefit of patients that results in improvements in clinical care lies in the individual nurse^[49]. Boore^[51] surveyed a group of 25 students enrolled in the Doctor of Nursing Science program to explore students' expectations and motivations. The results revealed that the majority of registered nurses were motivated by the course's potential to increase their competence in practice. Literature from North America also identified that clinical nurse specialists who usually have a Master qualification have a positive effect on the quality of patient care^[52-55]. These studies deduce that the positive effect on the quality of patient care is highly associated with the knowledge attained by the graduates.

Rolls^[56] suggested that well-educated nurses are deemed to be capable of finding solution to health problems more comprehensively, promptly and efficiently than others, thus clients are offered the best possible care. Similarly, a group of 42 students who undertook postgraduate critical care course, reported an improvement in the care they provided^[57]. In an explorative, descriptive study of 23 Master students, 67% of the graduates reported a change in practice and that new knowledge acquired from their studies had been used in the workplace^[14]. This suggests that there is a positive relationship between postgraduate education and practice, a view supported by numerous studies^[14, 15, 18, 33-35, 49].

However, the students also acknowledged that change in practice was slow and the process can be blocked in several ways^[11].

4 Discussion

In summary, the findings of the review are that:

- 1) There is very little evidence of change of attitudes of registered nurses with regard to the desirability of postgraduate education for specialty practice;
- 2) There is some evidence of increased knowledge and skills being developed through postgraduate education but few if any studies that actually measure this;
- 3) There is little evidence of measured change in practice resulting from postgraduate education.

From this literature review, it can be concluded that there are a multitude of issues associated with registered nurses' attitudes to postgraduate education for specialty practice, in particular their own experiences but also the attitudes of others. Given the paucity of research in registered nurses' attitudes towards postgraduate education, and the effects of postgraduate education on increasing knowledge, skills and change in practice, further work is needed to develop knowledge bases in these areas.

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