A review of nursing and midwifery education research in the Republic of Ireland

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Summary   This literature review aims to (a) provide a summary of the research conducted in the Irish nurse/midwifery education field, (b) identify key recommendations from the research reviewed and (c) examine the policy, theory and methodological implications of the research conducted. The electronic databases of CINAHL (EBSCO host 1982–2006) and PubMed (1950–2006) were searched for the relevant literature. Sixty-one studies satisfied the criteria for inclusion which were based on; quality of research design, sampling, data analysis, scientific merit, and authorship (registered nurse/midwife who conducted research in the Republic of Ireland). Findings demonstrated diversity in relation to aims, methods and results highlighting a need to formulate a collaborative research agenda in nurse and midwifery education.

Introduction

Nurse and midwifery education in the Republic of Ireland has been radically reshaped in the past 15 years as a result of the Report on the Commission on Nursing. A Blueprint for the Future (Government of Ireland, 1998), The Nursing Education Forum (Government of Ireland, 2000), The Report of the Paediatric Nurse Education Review Group (Depart-ment of Health and Children, 2000), Requirements for Standards for both Nurse and Midwifery Registration Education programmes (An Bord Altranais, 2000a,b, 2005a,b) and the Report of the Expert Group on Midwifery and Children's Nursing Education (Department of Health and Children, 2004). Up to the mid nineties, nurses trained in hospital Schools of Nursing, utilising the apprenticeship model, qualifying with a certificate in nursing. In 1994 a three-year Diploma in Nursing was introduced, linking for the first time hospital Schools of Nursing with universities and other third level colleges. In 2002 a BSc nursing degree was

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established nationally and today all those entering the profession study for a four-year BSc degree. Irish nurses' have increased their research publication record exponentially in the last 20 years (McCarthy et al., 2006a). This review focuses on research published by nurses and midwives in the Republic of Ireland to ascertain both the research efforts and their subsequent outcomes as they pertain to nurse and midwifery education. Much of this research was unfunded and conducted by nurses either on their own or in collaboration with other nurses. The research which has been published demonstrates diversity in relation to aims, methods and results. Studies have therefore been categorized by topics and target populations and are presented as follows (Tables 1—9):

1. Bioscience component of nursing pre-registration programmes.
2. Supernumerary status of nursing students.
3. Teaching and learning of specific knowledge, skills and attitudes.
4. Nurse/midwife preparation for acting as preceptors.
5. The role of the clinical placement coordinator or clinical education facilitator.
6. Continuing professional development for registered nurses/midwives.
7. Investigating the experience of nursing students.
8. Post-registration education, experience and outcomes.
9. Nursing research into curriculum and course experience.

The review strives to analyse peer-reviewed journal publications of research conducted on nurse and midwifery education. However, to date little effort has been exercised in building research capacity of research themes in nursing or midwifery education in an Irish context.

Early Irish nursing/midwifery education research

Minimal research was conducted in Ireland prior to the initiation of the diploma in nursing programme. Just two research studies (both descriptive) published before 1995 and conducted by nurses' in the Republic of Ireland were found for inclusion in this review (see Tables 7 and 9). One of the largest Irish educational studies was conducted by Cowman, 1995, 1996, 1998 and investigated differences in course experiences. This is the only published study to include the en-

Table 1 Bioscience component of nursing pre-registration programme

Author	Aim	Design/sample	Major findings	Implications
McKee (2002)	To evaluate the difficulty with bioscience component of the diploma programme	Descriptive correlational design $n = 119$ first year diploma nursing students	Study skills, attendance and lack of previous theoretical biological sciences were found to have contributed significantly to the difficulties with the bioscience component of the programme	The researchers acknowledge the necessity to establish the minimal level of entry knowledge required before course commencement and appropriate strategies should be put in place to deal with little biological knowledge
Drennan (1999)	To evaluate the theoretical component of the first year of the diploma in nursing programme	Descriptive survey Nurse tutors, college-lecturers and student nurses. $n = 97$	It was suggested that the diploma in nursing programme was over assessed and students were reporting difficulties particularly in relation to the biological science component of the course	Poor integration or sequencing of modules was problematic and nurse educators should attempt to alleviate this through appropriate curriculum planning. Over assessment was also problematic and this can lead to surface learning

Table 2 Supernumerary status of nursing students

Author	Aim	Design/sample	Major findings	Implications
Begley and Brady (2002)	To investigate the views of nurse managers towards diploma students nurses during their first clinical placement	Grounded theory design $n = 10$ nurse managers	Managers felt that there was adequate preparation of staff nurses and students for the first clinical placement and students demonstrated interest and ample ability	The initiation of clinical placements early in the programme was recommended. It was also suggested that students be encouraged to provide full care to patients under supervision to maximise the learning experience
Condell et al. (2001)	Explored students perceptions of the clinical learning environment	Qualitative descriptive design $n = 81$ first and third year student nurses	Students favoured active participation within the clinical setting as the best method of learning	Adequate supervision of clinical practice, refection on practice and discussions of students learning were recommended as a means of maximising the learning experience
Higgins and McCarthy (2005)	To explore psychiatric student nurses' experiences of mentorship during their first practice placement	Qualitative $n = 6$ psychiatric student nurses	Students generally viewed mentorship in a positive light that maximised learning opportunities	The researchers recommend that supports be put in place in the case of ''absent mentors'' to ensure students are supported at all times
Joyce (1999)	To explore student nurses, nursing staff and nurse teachers experiences of introduction of supernumerary student status	Action research phenomenological methods $n = 43$ qualified nurses, student nurses, teachers and document analysis	There were variations in opinions on the experience of supernumerary learning from nurse teachers, student and staff nurses. With differing perceptions of its value	The researcher identified the necessity of preparing students, educators and nursing staff on supernumerary status to lessen concerns and confusion surrounding it. Implications for nurse managers include the consideration of appropriate staff mix to ensure adequate supervision of students
Morgan (2002) and Morgan (2004)	To investigate staff nurses' perceptions toward students on their first placement	Qualitative, phenomenological design $n = 6$ first year student nurses	The attitudes of registered nurses to students on clinical practice placements were found to affect student's learning	Positive attitudes and encouragement of students should be promoted in an effort to optimise student learning
O'Callaghan and Slevin (2003)	Investigated the lived experiences of 10 registered nurses facilitating supernumerary nursing students	Qualitative, phenomenological design $n = 10$ registered nurses facilitating supernumerary nursing students	Registered nurses appeared to have differing interpretations of the term supernumerary status	Appropriate preparation of staff nurses for supernumerary status is necessary to ensure adequate support of students on clinical placement

Table 3 Teaching and learning of specific knowledge, skills and attitudes

Author	Aim	Design/sample	Major findings	Implications
Brosnan et al. (2006)	To evaluate the implementation of objective structured clinical skills evaluation in nursing (OSCE)	An evaluation focused approach. $n = 20$ students (interviews) $n = 8$ nurse lecturers (interviews) $n = 89$ students (questionnaires)	Students felt that OSCE was a fair and appropriate method of assessment and led to increased confidence regarding clinical placements. The OSCE was considered stressful by students and staff	The authors suggest that the implementation of the OSCE may help reduce the theory—practice gap. It is an evaluation process which other nursing institutions should consider
Curtis et al. (2002)	To explore nursing students experience and attitudes to computers	Descriptive survey 120 post-registration nursing students	Students felt that more encouragement and training were required to assist in computer use	The researchers recommend the initiation of computer training programmes in their own school for incoming students. This recommendation should be considered by other schools in an effort to alleviate pressure on students to be computer literate
Madden (2006)	To investigate the extent to which CPR knowledge and skills are acquired and retained following CPR training	Quasi-experimental, time series design. $n = 55$ diploma nursing students	Pre-test scores suggest a lack of CPR knowledge which improved following CPR training. No student achieved a pass standard for CPR performance in either pre or post-test	The authors recommend an evaluation of current practices concerning CPR instruction
Morgan (2006)	To discuss if the clinical skills laboratory helps students integrate theory and practice during their first placement	A qualitative Heideggarian phenomenological approach was used sampling 6 first year students	The clinical skills laboratory was deemed to be essential for developing nursing skills, preparing the student for placement and integrating theory to practice	Practitioners must display the knowledge and skills required to promote theory—practice integration to enhance student education and hence patient care
Coffee (2005)	To evaluate the use of portfolios of evidence based practice and reflection as a means of assessment of clinical learning in a Higher Diploma in Gerontological Nursing	Quantitative pilot study $n = 22$ Higher Diploma in Gerontological Nursing students	The majority of participants found the portfolio to be a useful method of assessment which provided focus and helped link theory with practice	The use of clinical learning portfolios may be means of advancing nursing practice at both post graduate and undergraduate level. Nurse educators should consider the possibility of introducing clinical learning portfolios across programmes in an effort to assimilate theory with practice and promote meaningful learning

Table 3 (*continued*)

Author	Aim	Design/sample	Major findings	Implications
Begley and White (2003) and Begley and Glacken (2004)	To ascertain 72 students perceived level of assertiveness prior to and nearing completion of their three-year pre-registration certificate in nursing programme	Descriptive, quantitative, comparative survey design *n* = 72 student nurses	Student's level of assertiveness and self esteem rose as they approached completion of the three-year program. Students' self-esteem could be increased by the use of frequent positive feedback and by improving job satisfaction	Promoting self-esteem is important, and in the clinical setting this may be achieved through the provision of positive feedback to students
O'Connor et al. (2003)	To explore nurse teacher's experiences of using reflection with diploma students	Qualitative design *n* = 11 nurse teachers	Nurse teachers felt that reflection was a way of learning from experiences, however it was noted that reflective practice was compartmentalized within pre-registration nursing curricula	Facilitating reflective practice is challenging and nurse teachers should be adequately prepared for this role
Kelly (2002)	To investigate the experience of qualified nurses in assessing student's clinical skills	Mixed method — qualitative and quantitative (constructivist approach) *n* = 112 ward sisters, staff nurses, nurse teachers, clinical placement co-ordinators	Nurses believed that clinical staff has an important role to play in clinical assessment of students; but, they need appropriate support from managerial and educational staff to fulfil this role	The researchers make recommendations for a new clinical assessment strategy which recognises the need to prepare and support staff nurses in their role of clinical assessment
Morgan and Collins (2002)	To ascertain information about learning of clinical skills during first clinical placements	Qualitative, phenomenological design *n* = 6 first year student nurses	During a first clinical placement students learned a variety of clinical skills from: ward sisters, staff nurses, clinical placement co-ordinators and other students	The need to provide staff nurses with teaching and assessing courses was reiterated as staff nurses have key responsibility for educating students in practice
Touhy (2002)	To understand how students communicate with older people	Ethnographic approach *n* = 8 student nurses	Four themes regarding student nurse-older person communication were identified	The researchers identify a number of recommendations including the promotion of person centred care, facilitating clinical supervision, providing additional interpersonal skills and communication theory, promoting reflective practice and auditing clinical areas to ensure they are appropriate learning environments

Table 3 (*continued*)

Author	Aim	Design/sample	Major findings	Implications
Tyrrell (1997)	To investigate student nurse's knowledge and attitudes to assessment of acute pain	Descriptive with quantitative and qualitative components *n* = 91 first year and thirds year certificate student nurses	The majority of the students felt they lacked knowledge and confidence in assessment of acute pain	This study is almost 10 years old and the role student nurses' play in the assessment of acute pain has undoubtedly changed since then. In particular the level of student supervision has changed dramatically in the past years

Table 4   Nurse/midwife preparation for acting as preceptors

Author	Aim	Design/sample	Major findings	Implications
Hyde and Brady (2002) and Brady and Hyde (2002)	Explored registered staff nurses attitudes to and their perceptions of their role in facilitating learning and staff nurse's perceptions of the transition from certificate to diploma level in nursing education	Qualitative *n* = 16 registered nurses	The researchers found that staff nurses felt that supernumerary students were overly focused on theory, and the student's role was misconstrued as being solely observational and not as a team member	The identification and adoption of a model of student learning support was recommended as a means of achieving uniformity and the need to develop a programme to prepare staff nurses for their role as facilitator was also highlighted
Savage (1998, 1999)	To explore student nurses' reported views on the influence of staff nurses in creating a ward learning environment	Descriptive correlationa survey design *n* = 120 first, second and third year certificate student nurses'	Findings demonstrated that less than half of the respondents reported favourable ward learning environments	This study was conducted before the introduction of full time under-graduate diploma in nursing and recommendations were made to ensure the appropriate preparation of staff for their role as supervisor and facilitator of student learning. It would be interesting to compare findings from a similar study to evaluate whether such preparation has occurred and the difference, if any, it has made to the clinical learning environment

Table 5 The role of the clinical placement coordinator (CPC) or clinical education facilitator (CEF)

Author	Aim	Design/sample	Major findings	Implications
Lambert and Glacken (2006)	To investigate the role of clinical education facilitators CEFs	Exploratory descriptive design *n* = 10 CEFs *n* = 5 post-registration students	Four major areas were identified as core elements of the CEF's multifaceted role; facilitating transition, maximising learning opportunities, preparing the clinical environment and providing support	The necessity to define the role of the CEF is highlighted to ensure consensus among stakeholders
Drennan (2002)	Evaluated the role of the clinical placement coordinator (CPC) in the support of diploma students nurses nationally	Mixed method approach Part 1: *n* = 166 Part 2: *n* = 368 CPCs, directors of nursing, practice development co-ordinators tutors, staff and students	Core elements of the CPC role were identified as student support and practice development	The CPCs' role was viewed positively and the link role provided by CPCs to other student support groups was welcomed

Table 6 Continuing professional development for registered nurses/midwives

Author	Aim	Design/sample	Major findings	Implications
Doyle (2005)	To investigate the continuing professional education of Irish Paediatric nurses	Survey *n* = 205 registered paediatric nurses	Informal methods of education were identified as: journals, study days, conferences, internet, computerized journal databases, journal club	A number of recommendations were identified including the decentralisation of study days to promote attendance. Computer training should be provided. Appropriate journals should be made available
National Council for the Professional Development of Nursing and Midwifery (2004)	To produce a report on the continuing professional development (CPD) of Nurses and Midwives	Mixed methods questionnaires and focus groups *n* = 2039 staff nurses and midwives	72% of nurses and midwives considered in-service education to be entirely relevant. Ratings of competence by respondents showed 40% assessed themselves as ''proficient'', 14% as ''expert'' and 1% as ''novice'' professionals	There were a number of recommendations made regarding the provision of CPD for nurses and midwives

tire student nurse population in both the Republic and Northern Ireland. Other research conducted on hospital certificate trained students focused on dissimilar aims (Tables 3, 4 and 9) such as the-atre placement experiences (Landers, 1996); pain management (Tyrrell, 1997); staff nurses' contri-bution to the ward learning environment (Savage, 1998, 1999) and the linkage of theory with prac-tice (Landers, 2001). It is regrettable that a pau-city of research exists prior to the establishment of the diploma as there is little data existing for comparison purposes.

Table 7 Investigating experience of nursing students

Author	Aim	Design/sample	Major findings	Implications
Fleming and McKee (2005)	Evaluation of a welcoming programme tailored to the university socialisation and study needs of mature students	Descriptive survey design. $n = 244$ first year nursing BSc students	Students who participated in a university welcoming program tailored to the needs of mature students demonstrated significantly stronger theoretical progression than those who had not	Putting appropriate support services in place for mature students may assist in the continued recruitment and retention of mature students. Recommendations made by students included additional IT and study skills and introduction of the subjects on the curriculum
Landers (1996)	To investigate certificate student nurses experience on their theatre placement, with special focus on experiences of stress	Phenomenological study using semi structured interviews to investigate the experiences of 25 student nurses	Student stress associated with their theatre placement was due to the alien environment, the isolation of the theatre department and their lack of knowledge about theatre	A recommendation offered was to orientate students to the theatre environment before placement in an attempt to reduce student stress
McCarthy and Cronin (2000)	To identify biographical, educational, motivational and attitudinal characteristics of students entering nurse education in Ireland	Quantitative cross-sectional design $n = 727$ diploma student nurses	The majority of student's families supported nursing as a career choice. The most notable changes over the 10 years were the increase in male applicants for nursing and the older profile of student nurses	The researchers identified a number of implications from these findings which include the need for continued effort in areas such as promotion to maintain support for nursing as a career choice
McCrea et al. (1994)	To investigate the learning experiences of student midwives	A questionnaire approach was used to investigate the learning experiences of student midwives $n = 42$	The quality of teaching and the way registered staff perform their job influences the students decision to continue to practice midwifery	Midwives need to reassert themselves as independent practitioners who manage the care of normal pregnancies

Evaluation of changes in nursing/ midwifery education

An external review of the Diploma Programme was conducted in 1998 by a team of researchers from the University of Southampton, which examined and gave feedback to policy makers, regarding the future of nurse education programmes in Ireland (The NEATE report, Simons et al., 1998). The report highlighted a number of issues that diploma student nurses had not been integrated fully into third level institutions and that much of the education was largely didactic and did not reflect the culture of self-learning evident in third level

Table 8   Post-registration education, experience and outcomes

Author	Aim	Design/sample	Major findings	Implications
Hyde and Murray (2005)	Nurse's experiences of distance education programmes	Qualitative n = 15 nurses that completed a diploma or higher qualification by distance education	The experience of distance education was positive for students	Distance education is a potential way of disseminating nursing knowledge. The researchers suggest that nurse educators should continue to develop distance education programmes to achieve this
Nicholl and Timmins (2005)	To describe the stressors associated with undertaking a part time Bachelor of Nursing Science BNS programme	Quantitative n = 70 BNS students	The main aspects of the programme which were considered stressful included; trying to balance work commitments and the required study, the prospect of and preparing for the final examination	The researchers recommend that lecturers consider the effects of excessive workloads on student well being and to ensure students are adequately prepared for the demands of the programme. Information days before the course commences with graduate students available for questions may be of benefit
McCarthy and Evans (2003)	To investigate the profile of nurses who undertook post-registration education and its impact	Survey n = 136 nurses and midwives who completed post-registration courses	Findings relate to post graduate courses studied, and learning outcomes from the courses	A number of recommendations are provided to assist facilitate changes in the clinical environment once courses are complete
Begley (1998, 1999a,b,c,d, 2001a,b,c, 2002)	To investigate student midwives experiences of the first three months of their midwifery training	Triangulation methods longitudinal study n = 125 student midwives	Students inevitably had ''good days'' and ''bad days''. The perceived gap between qualified nursing staff and students was due to a number of factors. Student midwives articulated the view that their educational needs were often denied as they were given little clinical training or guidance	The need for adequate support and supervision of student midwives during their first three months was highlighted to ensure optimal learning occurred in a ''non-threatening environment''
Delamere (2002)	To investigate the effect of completing a post-registration course relating to HIV and Aids on clinical nursing practice outcomes	Descriptive survey n = 68 nurses and midwives who completed the post-registration programme	A post-registration course could have positive effects on nursing practice	The provision of educational programmes focusing on specific diseases can lead to advanced practice in that area

Table 9 Nursing research into curriculum and course experience

Author	Aim	Design/sample	Major findings	Implications
Clarke et al. (1999)	An evaluation of the pilot Registration/Diploma nursing programme in University College Galway (UCG)	A case study approach was used to evaluate the Galway diploma model. Diploma students from UCG and other universities comprised the sample	There were differences of opinion concerning the nature, purpose and scheduling of tuition in the biological and social sciences, secondly that difficulties that existed with An Bord Altranais method of assessment of clinical nursing skills continued, students reported that practice was the main catalyst for their learning and CPCs were key contributors to student learning	Early clinical placements could reduce the problems associated with theoretical isolation experienced by students. Recommendations concerning the role of the CPC included providing clarity of their role. The development of a degree in nursing studies was ultimately recommended
Cowman (1995, 1996, 1998)	To investigate the differences in course experience of the total student nurse population in 1991 in Northern Ireland (Project 2000 programme) and the Republic of Ireland	Triangulation — quantitative and qualitative — (phenomenological) n = 125 student nurses	Significant differences were observed between students teaching and learning preferences in the different branches of nursing (general, psychiatric and intellectual disabilities) Generally, students preferred teacher-structured strategies	Nurse educators must realise that over-burdening students fosters surface learning approaches, and should help relieve pressure by spacing submission dates if there is to be any optimism for deep approaches to learning
Cowman (1995)	To ascertain the teaching/learning preferences of student nurses	The total student population which commenced training in October 1991 in the Republic of Ireland were investigated	Demonstration and practice were the most popular teaching/learning method for 65% of the students, with lectures the second favourite at 42%	Teacher cantered approaches to teaching and learning are preferred by a majority of students. Need for teachers' to have formal training in teaching and a definition of effective teaching
Elliott and Higgins (2005)	To evaluate self and peer assessment strategy, designed to promote student participation in group projects	Quantitative action research n = 68 post-graduate in clinical health sciences students	A self and peer assessment strategy was effective in ensuring fairness and equity in the grading of projects by post graduate students	Self and peer assessment is a potential strategy to promote deep meaning learning among students as students' motivation to do well tends to increase with this method of assessment

Table 9 (*continued*)

Author	Aim	Design/sample	Major findings	Implications
Evans and Kelly (2004)	Examined the stress experience and coping abilities of diploma student nurses	Descriptive survey design *n* = 52 diploma student nurses	Examinations, level and intensity of academic workload, the theory—practice gap, and poor relationships with clinical staff were identified as key stressors	The researchers make a number of recommendations based on the findings which include; well planned assessment strategies, the provision of appropriate support services and equipping students with coping skills. The researchers also recommended the introduction of joint appointments in an effort to minimise the theory practice divide which has occurred
Landers (2001)	Ascertained students' views on the linkage of theory with clinical practice	Qualitative, descriptive study *n* = 10 first year certificate students	There is a gap between what is taught in classrooms and practiced on the ward	Findings highlight the need for nurse educators to maintain strong links with students in clinical practice. The researcher suggests that communicative action between educators and practicing nurses may be required in an effort to bridge the theory practice gap
Nicholl and Higgins (2004)	Explored how nurse teachers perceived and interpreted reflective practice in pre-registration nursing curricula	Descriptive, exploratory survey design *n* = 40 nurse teachers	There was a variation in hours assigned to reflection within the curriculum and the positioning of reflection within the curricula	Nurse educators incorporating reflective practice within curricula should discuss their perception of the concept and how it should be taught to ensure consensus
Simons et al. (1998)	To evaluate the effectiveness of the pilot diploma programme in NUI Galway and to determine if issues identified here were repeated elsewhere	In depth case study design using interviews, research analysis, student sample analysis, discussion groups, questionnaires and comparison of diploma with apprenticeship students	The diploma was a significant move forward and was welcomed by many. Recommendations were made which were considered when deciding on and designing the BSc degree in nursing	The evaluation was a driver for BSc degree and provided useful recommendations and observations which assisted the development of the degree in nursing

Table 9 (*continued*)

Author	Aim	Design/sample	Major findings	Implications
Timmins and Kaliszer (2002a)	Explored the attitudes of those involved in nurse education to absenteeism	Quantitative-postal survey *n* = 57 nurse tutors and lecturers	Absenteeism among diploma nursing students is a potential problem in both clinical and educational settings. Nurse educators recommend the monitoring of attendance during lectures	It is cautioned that excessive teaching hours and study demands may contribute to absenteeism and recommendations are offered which include; reducing teaching hours, reducing student workload and the use of various teaching strategies
Timmins and Kaliszer (2002b,c)	Explored the extent of absenteeism and trends in absenteeism in a random sample of 70 students	Cross-sectional sample survey questionnaire *n* = 110 third year diploma student nurses and 70 absence records	Academic commitments, financial constraints, relationship with clinical and education staff, finance and the death of a patient influenced absenteeism	Despite predictions of continued if not worsened absenteeism once integrated into full time third level education, the problem of absenteeism continues with little agreement being reached on how to curtail the problem

institutions. These findings coincided with those of the interim report of the Commission on Nursing (Government of Ireland, 1998). Consequently, the Commission recommended that nursing students should be educated to degree level and be fully integrated into a third level institution. The Nurse Education Forum was charged with the task of developing a framework for the introduction of a degree level pre-registration nursing programme (Government of Ireland, 2000). In 2002, pre-registration nursing students began the first cycle of a four-year degree programme (qualifying nurses for registration as general nurses or intellectual disability nurses or psychiatric nurses). Graduate education was viewed as offering nurses a combination of sound formal education and reflective practice and was thought most likely to produce expert practitioners, who would demonstrate development of skills in analysis, critical thinking, problem-solving and reflective practice. An Bord Altranais (ABA), the regulatory body for the nursing profession in Ireland, stipulates the requirements and standards for nurse education programmes, i.e. programme duration and theory and practice content (An Bord Altranais, 2000a,b, 2005a,b).

Increasing demands are placed on nurse educators to take appropriate actions, which facilitate the development of independent learners that are capable of dealing with the demands of contemporary nursing. Therefore, nurse educators assume the role of facilitator setting course curricula, and operationalising teaching strategies in part substitution for traditional didactic methods of teaching. Fealy (2002) undertook a critical analysis of aspects of curriculum policy (in particular eclecticism) as outlined in the report of the Nursing Education Forum in pre-registration nursing education (Government of Ireland, 2000). Principles of flexibility, eclecticism, transferability, progression, utility, evidence based and shared learning were forecast by the Nurse Education Forum to be key guiding principles for curriculum regulation and design. However the translation of these principles into a working curriculum was left to nurse educators in individual third level institutions which has lead to varying approaches to the inclusion of the social, behavioural and bio-sciences in nursing curricula. The Nurse Education Forum suggested ''....the bringing together of knowledge from diverse sources to inform the study and practice of nursing'' (Government of Ireland, 2000, p. 59).

Fealy (2002) argues that there needs to be a clearer understanding of the role of the supporting sciences and students need to be exposed to the principal forms of knowledge in order to better understand the whole picture.

Undergraduate nurse education

Undergraduate nurse education has received greatest research attention in Ireland. Research was mainly conducted following the introduction of the diploma programme in 1994. Students undertaking the diploma programme were supernumerary meaning although present in the clinical areas; students are not counted as part of the workforce. Their purpose is to gain experience rather than meet service needs (McGowan and McCormack, 2003). Sampling methods were predominantly convenient and lacked multi-centre involvement with a resulting inability to generalise findings. The studies reviewed focused on a multitude of diverse aims (see Tables 1—3, 7 and 9) including: student's perceptions of the clinical learning environment (Condell et al., 2001); experiences of mentorship (Higgins and McCarthy, 2005) and staff and nurse managers' perceptions towards students on their first clinical placement (Morgan, 2002, 2004; Begley and Brady, 2002). However some similar themes emerged. The identification of problems with the bioscience component (see Table 1) of the diploma programme transpired as a common finding in research by Drennan (1999), Clarke et al. (1999) and McKee (2002). As more mature students enter nurse education, (McCarthy and Cronin, 2000) it is probable that difficulties will continue unless appropriate strategies to deal with the effective integration and application of the biosciences to nurse education are implemented and educational support services for mature students commenced (Fleming and McKee, 2005) (see Table 7).

Research pertaining to the clinical practice component of nurse education programmes

The transition from the apprenticeship model to supernumerary status has led many researchers to qualitatively explore staff and student experiences of supernumerary status (see Table 2) (Joyce, 1999; Hyde and Brady, 2002; Brady and Hyde, 2002; O'Callaghan and Slevin, 2003). A number of other researchers have been concerned with teaching of clinical skills and studies have focused on both the acquisition of skills (Morgan and Collins, 2002; Madden, 2006) and clinical skill evaluation and assessment (Kelly, 2002; Brosnan et al., 2006) (see Table 3). Brosnan et al. (2006) conducted a study in the South of Ireland which positively evaluated the use of objective structured clinical skills evaluation (OSCE) in assessing skills attained by student nurses. This method aims to bridge the theory practice gap by combining psychomotor skills, safety and communication abilities within the classroom. A study by McCarthy (2006) found that preceptors focused merely on the knowledge necessary for safe practice and were sceptical of theoretical learning beyond this. A common recommendation to emerge from research is the continued need to prepare and support registered nurses for their role as clinical assessor (see Table 4). Since the transition to an all-graduate nurse education in 2000 however, the ensuing role of preceptor and an evaluation of the preparation received by staff, has not been re-evaluated. In addition to preceptors, student nurses are supported in clinical practice, by clinical placement co-ordinators (CPC). The CPC was viewed very positively by Drennan (2002) who referred to CPCs' as an essential link between students, clinicians and educators (see Table 5).

Continuing professional development (CPD) for registered nurses and midwives

Changes, which have occurred in pre-registration nurse education, have been mirrored in the CPD of nurses and midwives, which encompasses both informal and formal post-registration education with many nurses studying for post-registration degrees, post-graduate diplomas and master's degrees (see Table 6). The number of doctoral prepared nurses in Ireland is increasing. The National Council for the Professional Development of Nursing and Midwifery (NCNM) is a Statutory Body set up after recommendations made in the Report on the Commission on Nursing (Government of Ireland, 1998) highlighted the importance of CPD of nurses and midwives in an ever changing health care environment. Advances in technology, role expansion, increased day care services and the introduction of clinical nurse specialist and advanced nurse practitioner roles rely on educated competent nurses. The report highlighted the ''absolute importance of continuing education to the quality of services offered to patients and the development and growth of professional nursing

and midwifery'' (Government of Ireland, 1998, p. 99). Following recommendations by the Commission, the NCNM was established. A key function invested in the Council, was the development of nurse specialist roles, which require educational preparation of nurses to postgraduate diploma level or equivalent.

The National Council for the Professional Development of Nursing and Midwifery (2004) published a report based on results of focus groups (n = 34) and questionnaires (n = 2005 questionnaires returned). It highlighted the concept of competence, its achievement and maintenance (see Table 3) and the career choice available to the nurses and midwives. The ultimate recommendations made by the report focus on the achievement of five main objectives; the development of a wide range of education activities for nurses and midwives, the fair and equitable provision and uptake of CPD at local, regional and national level to ensure the maintenance and enhancement of nursing/midwifery competencies. Responsibilities of stakeholders in each of these areas include career development and job satisfaction, retention of staff, enhancement of nursing and midwifery practice and hence service enhancement.

Post-registration education

Researchers' have investigated some aspects of post-registration education. Most of these studies were small scale cross-sectional surveys with a focus on unrelated aims (see Table 8). The samples predominantly consisted of nurses and midwives directly involved in post-registration education and their experiences of stress (Nicholl and Higgins, 2004), methods of assessment (Elliott and Higgins, 2005; Coffee, 2005), use of computers (Curtis et al., 2002) and of distance education programmes (Hyde and Murray, 2005). Two studies have investigated the views of nurses that have completed courses (McCarthy and Evans, 2003; Delamere, 2002). However the perceptions of key stakeholders on the benefits or outcomes of post-graduate education in the clinical arena have not been identified (see Table 9). There is a need for longitudinal research with a focus on outcomes from a number of perspectives including graduates, clinical nurse managers and service users in the Irish setting. It is noteworthy that a postgraduate education needs analysis conducted by the Nursing and Midwifery Planning and Development Unit in the mid-western region made a number of recommendations which included the need to accredit prior learning and the need for flexibility by both employers and educators in the organisation of programmes to ensure nurses and midwives can access post-graduate education (NMPDU, 2005).

Research focused on nurse/midwifery education, does it make a difference?

The majority of researchers make recommendations from findings, but there is little evidence of direction for theory or policy. However, there is evidence of how two research studies had an impact on current Irish nurse education programmes. Firstly, Simons et al. (1998) conducted a comprehensive external evaluation of the ''Galway model'' Diploma programme in Nursing. The report of the Commission on Nursing stipulated that lessons learned in evaluation by Simons et al. should be used in the development of the four-year BSc degree. Secondly, Begley (2001b) conducted a study on the experiences of student midwives in Ireland and found that the theoretical component of the course was ''far too short'' (p. 33) and called for a review of maternity services. Subsequently the theoretical instruction for the post graduate diploma in midwifery was since increased from 13 to 26 weeks and the introduction of the four-year BSc degree in midwifery in autumn 2006 brought Irish midwifery education in line with the education and training of general, intellectual disabilities and psychiatric nurses at undergraduate level in Ireland. These two studies make evident how education research can influence theory and policy development.

Similarly research can provide suggestions for improvement in course curriculum and structure. Nicholl and Timmins (2005) make several recommendations which have practical implications, such as the need for easing the transition of students to third level with the provision of optional study skills classes before programme commencement, as six of the top ten stressors for students were related to course assessments. Another suggestion made by Nicholl and Timmins (2005) that has practical implications for course design is the call for course planners to spread out course assessments as much as is possible. Cowman (1995, 1996, 1998) cites several implications from his studies, such as, the need for greater definition of the nursing curriculum and the drawing up of criteria for effective teaching.

The radical reforms Irish nurse education has witnessed in recent years, calls for research, which is collaborative, multi-centred and consistent. Nurse educators should form links to ensure that future research on nurse education in Ireland is

broadened to encompass the wider population and gain national perspectives. Central to the development of nursing as a profession is the ability of nurses to compete for research funding and engage in interdisciplinary research locally, nationally and internationally. Finally, Cowman (1996) calls for further research to be conducted in nurse education to identify indicators of performance other than student examinations (see Table 9). Specifically, research should focus on whether graduate nurses are equipped with the skills of analysis, critical thinking, problem solving and reflective practice highlighted by the Commission. Other aspects of exploration should focus on teaching and learning strategies and the appropriateness of the curriculum with specific reference to the unity of theory and practice.

Conclusion

The review examined 61 research studies conducted within the last 20 years. A variety of topics have been investigated, as illustrated in the brief examinations of the studies in Tables 1—9, with only 38 of the 61 studies conducted in the last 5 years. Research of the current education structure leads to informed progress and provides us with a guide for future developments in Ireland. The evaluation of the ''Galway model'' Diploma level education by Simons et al. (1998) provided valuable feedback which was then incorporated into the development of a BSc degree in nursing. Hence a similar evaluation of the BSc degree could lead to valuable improvements of the structure and content of these programmes, and advance Irish nurse education further. Furthermore, an evaluation of postgraduate programmes is imperative, as students perceptions of the impact of the courses, remain the only aspect investigated. There is a need for research to examine if there is any benefit of postgraduate education in terms of health care outcomes. The Research Strategy for Nursing and Midwifery in Ireland (Government of Ireland, 2003) and a publication on research priorities for nursing and midwifery in Southern Ireland (McCarthy et al., 2006b) mentioned only briefly the importance of education research in their reports. It appears that the nurses and midwives who participated in these studies place little emphasis on educational research. For example strategies referred only to a role in the development of a research based culture and failed to establish a proposal for future education research on nurse/midwifery education. It is apparent that a strategic approach to the nursing/midwifery education agenda needs

to be adopted if nursing and midwifery are to maintain and develop a culture of excellence in education. To conclude the authors would recommend the following:

1. The commissioning, completion and implementation of recommendations made as a result of a review of both undergraduate and post-graduate nurse and midwifery education provision both in terms of programme delivery and key educational and health care outcomes.
2. The immediate development and financing of a strategic approach to nurse and midwifery education in Ireland.

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