

The effectiveness of strategies and interventions that aim to assist the transition from student to newly qualified nurse

Reviewers

Deborah Edwards,¹ Clare Hawker,² Colin Rees,³ Paul Bennett⁴
^{1,2,3,4} The Wales Centre for Evidence Based Care, Cardiff, Wales

Background

The period of transition from student to newly qualified nurse can be stressful¹⁻⁸. “Reality Shock” is a common experience in newly qualified nurses who find themselves in work situations for which they feel inadequately prepared⁹⁻¹². The transition period is a time when nurses need to consolidate their knowledge and skills, and adjust to their new role. In the absence of adequate support, nurses have been found to change clinical area or leave the profession altogether¹³⁻¹⁶. The potential benefits of easing this transition could be reduction in stress and anxiety, enhanced job satisfaction and improved retention rates.

The international literature reports a variety of strategies and interventions to ease the transition process. These range from formal approaches such as graduate nurse programmes¹⁷, nurse extern programmes¹⁸⁻²⁰, nurse residency programme²¹⁻²², and registered nurse internship²³⁻²⁴. The more informal approaches reported include mentoring²⁵, lecturer practitioner support²⁶, preceptorship²⁷⁻²⁹, clinical practice facilitators³⁰ and peer support³¹. All of these approaches have aimed to boost the confidence, competence and sense of belonging of new graduates. However, there is little agreement in terms of what constitutes best practice and limited available evidence of the effectiveness of such approaches in achieving these desired aims and outcomes.

Two reviews have summarised the relevant evidence. In the first conducted in 2001, FitzGerald et al³², examined transition support specifically for new graduates excluding new qualified diplomates. Their review had a broad scope, investigating the effects of transition support on a wide variety of employer outcomes (retention rates, levels of competency, costs, satisfaction) and new graduate outcomes (anxiety reduction, job satisfaction, role recognition, satisfaction with programme/intervention, knowledge acquisition, role consolidation and level of expectations met). Thirteen studies were included in the review and comprised a variety of research designs, with only a few comparative studies and a number of descriptive and developmental studies. The review indicated that what little evidence exists, suggests that programmes that use multiple interventions and strategies over an extended period are useful. Nevertheless, there is a lack of evidence to indicate the optimal structure, length and content of the strategies and interventions. Where specific interventions for transition were considered, it was identified that clinical support personnel such as preceptors were important. Preceptors could aid the transition process if they were experienced, selected on specific criteria, and provided with training and support. As far as peer support groups were concerned, informal, unsupervised support was more effective than facilitator-led support groups. However, the evidence was based on a small number of studies with low scientific quality ratings.

A further narrative review suggests that formal programmes (interventions) can have a positive impact on graduates' transition to practice, whereas mentorship and preceptorship have the potential to reduce "reality shock". The findings of this review were constrained by the inclusion of Australian literature only, and a limited examination of research outcomes³³.

An initial search of the literature has identified that programmes for new graduate employment are continuing to develop. A systematic review of all the literature since the work of FitzGerald et al³² is required to demonstrate the efficacy of both formal transition programmes and alternative informal approaches. The purpose of this systematic review is to update and evaluate any further progress on efficacious interventions from 2000 onwards to achieve a smooth transition from student to qualified nurse in the first year of qualification. The original review included recently graduated health care professionals; the present review, however, will focus on recently graduated nursing staff only. Furthermore, this review will provide evidence to inform the development and implementation of successful strategies to improve newly qualified nurses' transition.

Objectives

The objective of this review is to report and critically evaluate the available evidence relating to the effectiveness of support strategies and interventions for newly qualified nurses in the first year during the transition from student to practitioner.

Criteria for considering studies for this review

Types of studies

The quantitative component of the review will consider any randomised controlled trials. In the absence of RCTs other research designs, such as non-randomised controlled trials, clinical trials, cohort studies, experimental and non-experimental studies, observational studies, descriptive studies and before and after studies, will be considered for inclusion in a narrative summary. This will enable the identification of current best evidence regarding effectiveness of support strategies and interventions for newly qualified nurses.

Types of participants

The review will consider all studies that focus on newly qualified nurses during their first year of practice in the clinical area. Depending on the programme of education, this will include diplomates (those qualifying on a Diploma level course in the United Kingdom) and graduates. It will also consider student nurses who have completed the substantive components of their course and are involved in externship programmes or other such programmes prior to commencing formal employment.

Type of intervention

The review will focus on support strategies and interventions that assist newly qualified nurses in their transition from student to practitioner and will include the following:

- i) Formal approaches
 - Graduate nurse programmes

- Nurse extern programmes
- Nurse residency programme
- Registered nurse internship

ii) Informal approaches

- Mentoring
- Lecturer practitioner support
- Preceptorship
- Clinical practice facilitators
- Peer support

Other support strategies and interventions as determined by the literature in the area will also be incorporated, as necessary.

Types of outcome measure

The outcome measures for this review will include the following:

i) For the employer

- Recruitment and retention
- Turnover rates
- Clinical competency
- Costs

ii) For the new diplomate / graduate

- Anxiety
- Stress reduction
- Job satisfaction
- Knowledge/skills acquisition
- Confidence
- Professional nursing behaviours
 - Leadership
 - Critical care
 - Teaching / collaboration
 - Planning / evaluation
 - Interpersonal relations / communication
 - Professional development

Other outcomes of effectiveness as determined by the literature in the area will also be incorporated, as necessary.

Search strategy

A number of electronic databases will be searched to identify both published and unpublished studies. The search strategy will consist of high precision MeSH terminology and keywords, to ensure that all relevant material is captured. This will be adapted to suit the capabilities of different databases. A three-stage search strategy will be used.

Stage 1

This stage will involve an initial search of MEDLINE and CINAHL using preliminary keywords drawn from the natural language terms of the topic.

The preliminary keywords to be searched are:

1. Transition
2. Nurse or nursing
3. Graduate
4. Clinical and/or support
5. Internship
6. Preceptorship
7. Graduate and nurse and programme

Stage 2

The text words contained in the title and abstract of relevant articles along with the controlled language index terms used to describe the papers will then be analysed to develop keywords for stage two. A second extensive search will then be undertaken of all keywords and index terms identified as relevant to the review. Individual search strategies will be developed for each index using the different terminology of index thesauri.

Stage 3

References from retrieved articles will then be searched for additional studies for the final stage of the process. Relevant journals such as *The Journal of Nursing Staff Development*, *Journal of Nursing Management*, *Journal of Nursing Administration*, *Journal of Advanced Nursing*, and *Australian Journal of Advanced Nursing* will be hand-searched to ensure that any relevant papers that may not be indexed in the major databases are located.

The search will seek both published and unpublished studies from 2000 to the present date. Only English language papers will be included in this review due to the limited resources available.

Databases

The databases to be searched for published material include:

- CINAHL
- MEDLINE
- British Nursing Index
- Cochrane Library
- EMBASE
- PsychLit
- PsychINFO
- PsychARTICLES
- Web Of Science
- EBM Reviews
- BioMed
- TRIP
- ERIC
- Scopus

The sources to be searched for relevant unpublished material include:

- SIGLE (System for Information on Grey Literature in Europe)
- WHOLIS
- Index of Theses
- Proquest Digital Dissertations
- Grey Literature Report
- Conference proceedings
- Research and clinical trials registers
- Internet sites of relevant associations

All studies identified during the database search will be assessed for relevance to the review based on the information provided in the title, abstract and descriptor/MESH terms. A full report will be retrieved for all studies that meet the inclusion criteria of the review (see Appendix I). Where any doubt exists the full article will be retrieved. Studies identified from reference list searches will be assessed for relevance based on the study title.

Assessment of methodological quality

Critical Appraisal

Studies meeting the inclusion criteria will be assessed for methodological quality using checklists developed by Fitzgerald et al³² (see Appendix II.1 for experimental studies and Appendix II.2 for observational and descriptive studies). Assessment will be undertaken by two reviewers independently with any disagreements being resolved by discussion with a third reviewer. If disagreement is due to a lack of information then the authors of the study will be contacted for clarification. The tool may be developed and revised following the full search.

Data Collection/Extraction

Data will be extracted from included studies using the data extraction tool which was developed by Fitzgerald et al³² (see Appendix III). Two reviewers will independently extract data. Any disagreements will be resolved by discussion with a third reviewer. The tool may be developed and revised following the full search.

Data Synthesis

If a sufficient number of studies are identified the results from comparable groups of studies will be pooled in a meta-analysis to determine the success of the intervention or strategy. Heterogeneity between combined studies will be tested using standard Chi-square test. Significant heterogeneity will be considered present when the p value is less than 0.05. Where possible, odds ratio or standardised mean differences and their 95% confidence intervals will be calculated for each included study. Review Manager 4.2.8 will be used for this purpose. Where statistical pooling is not appropriate or possible, the findings will be considered for inclusion in a narrative summary.

Conflict of Interest

There is no conflict of interest to report regarding this systematic review.

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Appendix I: Screening Tool

Inclusion criteria:

Strategies and interventions to assist the transition from student to newly qualified nurse.

Author: _____

Record Number _____

Year: _____

Reviewer _____

Types of participants

- Newly qualified nurses in initial transition from student to practitioner
- Student nurses (e.g. externship program, capstone courses)

Methods

- Evaluations of interventions / programme
- Experimental _____
- Descriptive _____
- Other _____

Types of Intervention

- Intervention(s) relating to the transition from student to practitioner
- Graduate nurse programmes / orientation strategies
- Externship
- Internship (residency)
- Mentoring
- Preceptorship
- Lecturer practitioner support
- Clinical practice facilitators
- Peer support
- Other

Types of outcome measures

- Nurse retention / reduced / attrition rates
- Clinical Competency
- Cost Effectiveness
- Job Satisfaction
- Anxiety / Stress
- Knowledge / Skill
- Confidence
- Professional nursing behaviours

Leadership

Planning / evaluation

Critical care

Interpersonal relations / communication

Teaching / collaboration

Professional development

- Other _____

Critical Appraisal

Include Exclude

Seek Further Info

Comments

Appendix II.1: Checklist – Experimental Studies

Author: _____
Year: _____
Record Number _____
Reviewer _____

Questions 1 to 4 must be answered “yes” for study to be included in a meta-analysis.

- 1) Were the participants randomised to study groups.
yes no not clear
- 2) Other than the research intervention, were participants in each groups treated the same.
yes no not clear
- 3) Were the outcomes measured in the same manner for all participants.
yes no not clear
- 4) Were groups comparable at entry
yes no not clear

Studies that answer no to questions 5, 6 or 7 will only be included in the systematic review if no other higher quality studies are identified available, however this must be noted in the report.

- 5) Was there adequate follow-up of participants.
yes no not clear N/A
(more than 80% followed up) (less than 80% followed up)
- 6) Was allocation to treatment groups concealed from the allocator.
yes no not clear N/A
- 7) Were those assessing outcome blinded to treatment allocation (if outcome not objective such as survival or length of hospitalisation).
yes no not clear N/A

Critical Appraisal

Include Exclude Seek Further Info

Comments

Appendix II.2: Checklist – Observational & Descriptive Studies

Author: _____
Year: _____
Record Number _____
Reviewer _____

- 1) Is the study based on a random or pseudo-random sample?
yes no not clear N/A
- 2) Are the criteria for inclusion in the sample population clearly defined?
yes no not clear N/A
- 3) Were outcomes assessed using objective criteria?
yes no not clear N/A
- 4) If comparisons are being made, was there sufficient description of the groups?
yes no not clear N/A
- 5) Was an appropriate statistical analysis used?
yes no not clear N/A

Critical Appraisal

Include Exclude Seek Further Info

Comments

Appendix III: Data Extraction Form

Author: _____
Year: _____
Record Number: _____
Reviewer: _____

Method _____

Types of Intervention

Graduate programmes	<input type="checkbox"/>	Preceptorship	<input type="checkbox"/>	Other	<input type="checkbox"/>
Externship	<input type="checkbox"/>	Peer support	<input type="checkbox"/>	_____	
Internship (residency)	<input type="checkbox"/>	Lecturer practitioner support	<input type="checkbox"/>	_____	
Mentoring	<input type="checkbox"/>	Clinical practice facilitators	<input type="checkbox"/>		

Types of outcome measures

Retention: _____
Turnover: _____
Attrition rates: _____
Competency: _____
Cost Effectiveness: _____
Job Satisfaction: _____
Stress: _____
Knowledge: _____
Skill: _____
Confidence: _____
Professional nursing behaviours: _____
Leadership: _____
Critical care: _____
Teaching / collaboration: _____
Planning / evaluation: _____
Interpersonal relations / communication: _____
Professional development: _____
Other: _____

Program Description

- Type of Programme _____

- Setting _____
- Duration _____

- Clinical Orientation / Induction _____

- Clinical Support _____

- Clinical Placement _____

- Didactic elements _____

- Registration Requirements _____

- Other information _____

Experimental Studies

Number of participants

Group A: _____ Group B: _____ Group C: _____

Description of Interventions

Intervention A _____

Intervention B _____

Intervention C _____

Results

Dichotomous Data

Outcome	Treatment Group number/total number	Control Group Number/total number

Continuous Data

Outcome	Treatment Group mean & SD (number)	Control Group mean & SD (number)

Findings

Authors Conclusions

Reviewers Conclusions

Observational Studies

Number of participants _____

Findings

Authors Conclusions

Reviewers Conclusions

Other studies

Number of participants _____

Findings _____

Authors Conclusions _____

Reviewers Conclusions _____

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