### **TITLE PAGE**

**Title:** IN PURSUIT OF AN OPTIMAL MODEL OF UNDERGRADUATE NURSE CLINICAL EDUCATION: AN INTEGRATIVE REVIEW

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Word count: Excluding Abstract, Key words and Highlights, Reference list, Tables = 4385

**Acknowledgements:** The first author is the recipient of an Australian Post Graduate Award however, there was no further source of funding for this review and no conflict of interest identified.

#### ABSTRACT

Clinical learning experiences are an essential part of nurse education programs. Numerous approaches to clinical education and student supervision exist. The aim of this integrative review was to explore how studies have compared or contrasted different models of undergraduate nurse clinical education. A search of eight databases was undertaken to identify peer-reviewed literature published between 2006-2015. Eighteen studies met the inclusion criteria. A diverse range of methodologies and data collection methods were represented, which primarily explored student experiences or perceptions. The main models of undergraduate nurse clinical education identified were: traditional or clinical facilitator model; the preceptorship or mentoring model; and the collaborative education unit model in addition to several novel alternatives. Various limitations and strengths were identified for each model with no single optimal model evident. Thematic synthesis identified four common elements across the models: the centrality of relationships; the need for consistency and continuity; the potential for variety of models; and the viability/ sustainability of the model. The results indicate that effective implementation and key elements within a model may be more important than the overarching concept of any given model. Further research is warranted to achieve an agreed taxonomy and relate model elements to professional competence.

### **Key words**

Nursing students, Clinical education, Clinical placements, Education models

## **Highlights**

- There is no single ideal undergraduate/pre-licensure nurse clinical education model.
- The importance of interpersonal relationships across education models.
- Effective implementation and support of a given model are central for success.

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education programs (Crombie et al., 2013; Eick et al., 2012). This review sought to identify if there was an optimal model of clinical education and/or student supervision to maximise learning outcomes. In addition, exploration of the methodological approaches to evaluating differing models in the included studies may inform future scholarship in this area.

### <u>AIM</u>

The overall aim of this integrative review was to identify, describe and critically review studies that from the student perspective compared or contrasted clinical education models, including models of student supervision, within undergraduate nursing programs. The two main objectives of the review were to:

- Describe the methodological approaches taken in each study and consider if any challenges were encountered.
- Integrate the findings from the studies to inform our understanding of undergraduate nurse clinical education and establish if an optimal model(s) emerged.

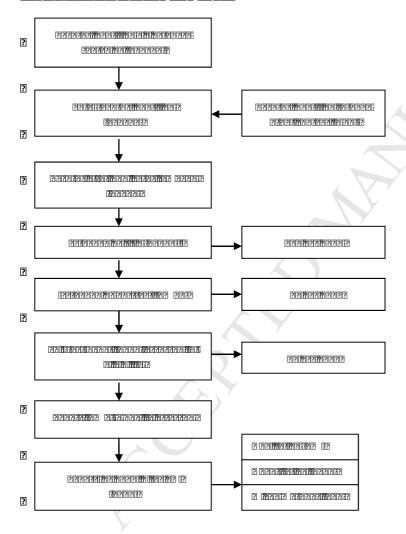
#### **METHODS**

### Search methods

An integrative review using a systematic approach was employed. This review method supports simultaneous inclusion and examination of "diverse methodologies" generating a comprehensive approach to address the objectives of this review (Whittemore and Knafl, 2005, p.547). The literature search was guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analysis checklist - PRISMA (Moher et al., 2009). Eight electronic databases were searched: Academic Search Complete, CINAHL, Medline Ovid, ProQuest Health and Medical, Scopus, PsychInfo plus the Joanna Briggs Institute EBP Database and Cochrane Library. Hand searching of nurse education journals and references lists of included papers was undertaken. The search terms were: clinical education, practice education, practice learning, clinical learning environment and undergraduate, student, pre-registration and model/models, nurs\*, nursing, nurse. In order to capture studies investigating contemporary curricula the search was limited to the last 10 years, Jan 2006-Dec 2015. Inclusion criteria were: 1) English language; 2) peer-reviewed; 3) compared models of undergraduate clinical

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#### Overview of included studies (Table 2)

#### Study design, study objectives and data collection methods

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#### Methodological challenges identified by study authors

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#### The central role of interpersonal relationships 2

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### Consistency and continuity in clinical education delivery.

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### Opportunity for varied clinical education/supervision models

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2017 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 19 2 2/2020/10/2019 (1999) 2 (2021) (2011) ( ANTERIS MANIERA DE LA CONTRE DEL LA CONTRE DEL LA CONTRE DEL LA CONTRE DE LA CONTRE DEL LA CONTRE DE LA CONTRE DEL LA CONTRE DE LA CONTRE DEL LA CONTRE DE LA CONTRE DEL LA CON 

- 2 (777) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) | 277) |

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**Acknowledgements and Conflict of Interest:** The first author is the recipient of an Australian Post Graduate Award however, there was no further source of funding for this review and no conflict of interest identified.

