

Full Title: Learning to lead: a scoping review of undergraduate nurse education

Short running title: Learning to lead: a scoping review

Author details:

Janet Mary Elizabeth Scammell (Corresponding author)

Associate Professor (Nursing)

Department of Nursing and Clinical Science, Bournemouth University

Bournemouth House, 17 Christchurch Road,

Bournemouth, Dorset, BH31 6DT, England.

jscammell@bournemouth.ac.uk

+441202962751

Joao Luis Alves Apostolo, Professor, Escola Superior de Enfermagem de Coimbra, Portugal.

Monica Bianchi, Professor, Department of Business Economics, Health and Social care,

University of applied Sciences and Arts of Southern Switzerland. Manno. Switzerland

Rosa Dilar Pereira Costa, Head Nurse, Department of Nephrology, Centro Hospitalar Lisboa

Norte - Santa Maria Hospital, Lisbon, Portugal.

Kirsten Jack, Reader in Learning and Teaching Development, Manchester Metropolitan

University, Manchester, England.

Marie-Louise Luiking, Leiden University Medical Centre, Leiden, The Netherlands.

Stefan Nilsson, Institute of Health and Care Sciences, and University of Gothenburg Centre for

Person-Centred Care, Sahlgrenska Academy, University of Gothenburg, Gothenburg, Sweden.

Acknowledgements:

This paper arose from the work of the European Region Nurse Education Research special interest group of the Sigma Nursing Scholarship Society.

Conflict of interest statement:

The authors have no conflict of interests to declare.

Funding sources: This project received no funding.

This article has been accepted for publication and undergone full peer review but has not been through the copyediting, typesetting, pagination and proofreading process, which may lead to differences between this version and the [Version of Record](#). Please cite this article as [doi: 10.1111/JONM.12951](https://doi.org/10.1111/JONM.12951)

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DR JANET MARY ELIZABETH SCAMMELL (Orcid ID : 0000-0001-8489-239X)

Article type : Review Article

Title:

Learning to lead: a scoping review of undergraduate nurse education

Abstract:

Aim - To explore undergraduate student's preparation for leadership roles upon registration.

Background - Effective leadership is vital when promoting positive workplace cultures and high-quality care provision. However, newly registered nurses are not always well-prepared for leadership roles.

Evaluation - A scoping review of primary research published in English between 2009-2019 was undertaken. Data were analysed using an adapted version of Arksey and O'Malley's (2005) framework. Nine papers met the review eligibility criteria.

Key issues – Findings revealed three themes: leadership education content; positioning of leadership education within the nursing programme; teaching and learning delivery.

Conclusions – The review highlighted some agreement about the knowledge, skills and behaviours to be addressed in leadership education. What varied more was the pedagogical methods used to deliver this, the extent of its integration throughout the programme and the nature of collaborative academic-practice working to ensure good quality clinical supervision.

Implications for Nursing Management – (1) students must be exposed to positive leadership practices during clinical placements to facilitate theory-practice integration. (2) Bullying negatively impacts on students' self-efficacy whereas positive role modelling from registered nurses supports development of leadership competence. (3) Leadership theory and competence should be introduced early and revisited throughout the programme.

Keywords

Education, Leader, Nurse, Research, Students.

Introduction

There is international concern about the quality of leadership in nursing practice and the link to undergraduate preparation (World Health Organisation (WHO), 2016). Indeed, strategic leadership is one of four goals of the ICN Strategic Plan 2019 – 2023 to meet current and future health care needs (International Council of Nurses (ICN), 2019). However, it has been suggested that newly graduated nurses are not ready for leadership roles (Al-Dossary, Kitsantas, & Maddox, 2016). This is problematic in the context of an increasing demand for care, combined with a global crisis in the recruitment and retention of nurses, notably retention of newly qualified practitioners (Buchan, Shaffer, & Catton, 2018) with implications for the supervision of nurse students (Scammell, 2019). Moreover, there is a direct relationship between leadership and quality of care delivered (Bianchi, Bagnasco, Bressan, Barisone, Timmins, Rossi & Sasso, 2018; Chappell, Richards, & Barnett, 2014). It is therefore an international imperative to understand the nature of nurse preparation for leadership roles in order to support undergraduate nursing students to be effective future leaders.

There does not appear to be a universally accepted definition of leadership (Scully, 2015) which might contribute to the problem of designing effective preparation for nursing students. In the context of this article, leadership is defined as influencing others to improve the quality of care (Al-Dossary et al., 2016). For those involved in education, this includes the preparation of undergraduate nursing students through theoretical input as well as practical application within clinical placement. Many theories of leadership exist but their relevance to nursing practice has been questioned, due to a lack of research evidence within the healthcare setting (Carragher & Gormley, 2017). However, it has been shown that transformational and

authentic leadership styles can be a predictor of quality outcomes (Faculty of Medical Leadership and Management, 2015).

Leadership is a quality that can be learned (Ledlow & Coppols, 2014) and therefore should be part of any undergraduate nursing preparation. Nurse educators need to work collaboratively with health care providers to develop education programmes fit for the realities of clinical practice (Marcellus, Duncan, MacKinnon, Jantzen, Siemens, Brennan & Kassam, 2018). In particular, nursing students must be skilled in team leadership, delegation and understanding their scope of practice (Hendricks, Cope, & Harris, 2010). However, with an already crowded academic curriculum (Dalley, Candela, & Benzel-Lindley, 2008) and clinical practice pressures, leadership preparation might not receive sufficient emphasis. The combination of leadership theory and clinical education is essential to address the academic-practice gap often reported as prominent in nurse education (Hatlevik, 2012). Therefore, those responsible for leadership education must have currency and credibility in terms of knowledge and skills concerning evidence-based leadership theories, styles and attributes.

Effective clinical experiences are needed to ensure meaningful learning about leadership (Middleton, 2013). Clinical placements provide opportunities for students to observe the application of theory to practice which is pertinent to leadership preparation: it is vital students know what leadership is *and* see it demonstrated in clinical practice. All undergraduate nursing programmes have an element of clinical placement; in the United Kingdom (UK) fifty percent of learning takes place in this environment, similar to programmes elsewhere, including Europe, United States of America (USA) and Australia (Saarikoski, Marrow, Abreu, Riklikiene, & Ozbicakci, 2007). Notwithstanding the value of simulation, clinical placement experience provides an authentic environment in which students can contextualise the theory learned in academic settings (Jack, Hampshire, Harris, Langan, Barrett, & Wibberley et al. 2018). However, nursing students can be exposed to poor leadership, negative experiences and role models in clinical placements which leave them feeling devalued, undermining their self-confidence (Rosser, Scammell, Heaslip, White, Phillips, Cooper et al. 2019). Jack et al. (2018) found that students perceived clinical

educators to be disempowered and unable to display effective leadership qualities. This could negatively impact on leadership confidence when newly qualified.

Brown, Crookes and Dewing (2015) in their literature review of clinical leadership in pre-registration nursing programmes published between 1990-2013, identified a paucity of research evidence. Since this time, a number of high-profile care scandals have emerged (for example Francis, 2013; OECD, 2017) where weak leadership has been identified, leading to policy imperatives to improve leadership within nurse education (ICN, 2019; Nursing and Midwifery Council, 2013). Given this context, this scoping review (SR) will investigate preparation of nursing students for leadership roles when newly qualified.

Method

The methodological framework proposed by Arksey and O'Malley (2005) was used and included the following steps: (1) identification of the research question; (2) identification of relevant studies; (3) study selection; (4) charting data; and (5) reporting the results. The optional phase of the framework 'consultation exercise' was not performed.

Research Question

This review sought to answer the following research question:

How are undergraduate nursing students prepared for leadership roles when newly qualified?

Identification of Relevant Studies

Study selection followed an iterative three-step approach: firstly, the development of a comprehensive search strategy including a combination of key words and Medical Subject Heading (MeSH) terms that were relevant to the topic. Second, to search the included databases using the identified keywords and index terms: Medline (via PubMed), CINAHL (via EBSCO) and Scopus. Third, to search for additional studies identified from the reference lists of all retrieved articles. The search terms used were broad enough to uncover related literature of relevant information being

reviewed. This process was conducted with different keywords and combinations to ensure that all suitable literature was captured:

(1) Concept ('leader', 'leadership', 'manage', "decision-making"), (2) Population ("undergraduate nursing student", 'baccalaureate' and 'bachelor') (3) Interventions / outcomes of interest ('curriculum', 'program', 'train', 'professional' 'development', 'skills' 'competencies' and 'learn'), followed by an analysis of text words in titles and abstracts and index terms used to describe the article.

Study Selection

The SR inclusion and exclusion criteria were discussed and agreed by all authors.

The inclusion criteria were: (a) research studies referring to both leadership and education; (b) published in English between 2009-2019; (c) quantitative, qualitative or mixed methods; (d) focused on the preparation of undergraduate nursing students. Restrictions on language were imposed because of limited resources. This date selection was made to focus on recent practice and to update previous literatures. The review focused on primary research studies and excluded commentaries, case reports, letters, guidelines, conferences proceedings, editorials, reviews and books. This was because the team wanted to analyse the available research evidence concerning nursing undergraduate leadership preparation.

Working in pairs, the review team independently determined the eligibility of articles using a two-stage screening process based on the information provided in the title and abstract, followed by a full-text review. First the reviewers screened the titles and abstracts of all identified literature against the research question and inclusion criteria and categorised them as include, exclude or uncertain. Doubts about the relevance of a study based on its abstract, resulted in retrieval of the full-text version. For those studies judged for inclusion, after removing duplicates, the full text articles were then retrieved. Disagreements between reviewers were resolved through discussion. Throughout the process, reviewers (located in five European countries) met regularly via an internet-based videoconferencing platform and e-mail to further discuss the screening process and analysis.

Charting Data

The reviewers extracted the data from included papers using an instrument designed by the team, in line with the objective and question review (author, study title, country of origin, aims, participants, study design and intervention type and key findings and outcomes). For qualitative studies, the methodology and key concepts were identified. Table 1 shows the characteristics of the included studies.

The quality of studies was assessed by all the review team using the Critical Appraisal Skills Programme (CASP 2019) tools. However, it was not possible to assess the quality of all studies as the available CASP evaluation tools were not suitable for all types of studies retrieved. Peters, Godfrey, Khalil, McInerney, Parker & Soares (2015) suggests that quality assessment of studies is not a determinant of eligibility for inclusion therefore article inclusion was justified through independent evaluation by the review team.

Findings

From a total of 565 articles retrieved and initially screened, after removing duplicates and studies judged to be non-relevant, twenty-two papers were identified for full-text review and nine met the review eligibility criteria. Figure 1 shows the PRISMA selection process (Moher, Liberati, Tetzlaff, Altman & Group, 2009).

The selected studies were conducted in a variety of countries: Australia (1), Brazil (1), Canada (2), Jordan (1), UK (1) and United States of America (USA) (3). Most were small scale and based in a single institution with the exception of one national survey. Qualitative approaches dominated (5), followed by mixed methods (2) and quantitative approaches (2). The overriding focus was student perceptions of leadership education and experiences. The exception was two studies of clinicians, practice stakeholder and academics views of undergraduate curriculum leadership content. A narrative account of the review findings is presented via three themes: leadership education content; position of leadership education within the programme; teaching and learning delivery.

Content of leadership education

Brown, Crookes and Dewing (2016) undertook a national survey (Australia) to explore what leadership knowledge, skills and behaviours should be included in pre-registration nursing curricula. In the knowledge area, the Role of the Registered

Nurse was selected by all and safety, ethics and risk management also featured strongly, whilst political awareness was given least priority. Written and verbal communication topped the skills list alongside dealing with change and conflict and establishing a therapeutic relationship, whilst being persuasive and coaching were ranked as of lesser importance. The top ranked behaviour was acting responsibly, followed by being accountable, whereas being courageous featured as least important. This study provides an insightful picture of professionals' responses to proposed curricular content to inform planning in Australia but may be transferable elsewhere.

In some settings, curricular content is prescribed by national leadership competencies. Ross, Olson, Eastlik, Kushner, Murad, Leung et al. (2018) reported on a sub-section of a descriptive study of a curricular content review to prepare Canadian students for nursing leadership. Overall content reflected leadership competencies, but the study identified that their achievement required support from clinical placements; firstly, organisational support facilitated by healthcare and education provider organisations working together to ensure a positive learning environment with receptive clinical role models and a zero tolerance of bullying. Second, resources such as workplace mentors with leadership expertise were vital. Areas of perceived lack of preparedness included conflict management, delegation, supervision and advocacy.

The integration of leadership theory with clinical experience was prominent within two other studies. Leal, Soares, Silva, Bernardes and Camelo (2017) interviewed students about knowledge and skills development during their undergraduate programme and how this related to working successfully in hospital environments. Focusing on management skills, students cited leadership and decision-making skills as being vital but felt ill-prepared to be a leader. The ability to communicate effectively with the multi-disciplinary team was viewed as important; the students acknowledged the value of theoretical learning but felt this needed to be linked better to clinical experience. Management of resources – people and material - was highlighted as under-developed in the curriculum, as well as 'real-world' team working skills. Francis-Shama's (2016) study of UK students explored a similar area, but in contrast to Leal et al. (2017) revealed a disengagement with learning

leadership theory within the curriculum. Participants viewed leadership as a personal quality that could not be taught, was not a priority skill and could be replaced by 'more relevant' topics.

Position of leadership content in nursing programmes

Six studies investigated leadership curricular content; four focused on final year nursing students (Demeh & Rosengren, 2015; Foli, Braswell, Kirkpatrick, & Lim, 2014; Lekan, Corazzini, Gilliss, & Bailey, 2011; Parmenter, 2013), whilst one was not specific when curriculum content would be included nor indeed how (Brown et al., 2016). Pepin, Dubois, Girard, Tardif, & Ha (2011) created a cognitive learning model to be used in the development of leadership competencies from student entry point to nurse expert level. Using an interpretive phenomenological approach, they explored leadership experiences of students and practitioners and identified 'learning turning points' to form a five-stage model. This illustrates evolving knowledge and skills over time as students were exposed to theoretical and clinical practice elements of leadership education.

In contrast Demeh & Rosengren (2015) explored Jordanian students' experiences of leadership following participation in a final year 'management and leadership in nursing-clinical' module. Unlike the students in Francis-Shama's (2016) research, these students viewed leadership as central to safe nursing practice. They readily identified role models and through them had their 'eyes opened' as to the skills required for effective leadership. They perceived the module as enhancing their understanding in order to bridge the gap between theory explored in university and clinical practice.

Teaching and learning delivery

Some studies indicated that an integrated approach to leadership education, incorporating academic and clinical practice experiences was a means to maximise learning but as Leal et al. (2017) reported, this was not always provided, leaving students feeling ill-prepared when encountering the realities of practice as newly qualified nurses. Lekan et al. (2011), Foli et al. (2014) and Parmenter (2013) describe specifically designed educational innovations in the USA to deliver integrated leadership education in the final year of the programme. Lekan et al.

(2011) evaluated their clinical leadership education innovation model within a leadership module via three phases: (1) pre-clinical preparation through independent study; (2) classroom exposition; (3) clinical rotation where students assess clients and teach care assistants about signs of clinical deterioration. Module evaluation via reflective journals revealed improved leadership self-efficacy, greater confidence when interacting with care assistants and using evidence-based protocols. It should be noted however that the clinical rotation consisted of only eight hours per student.

Foli et al. (2014) reported a study involving a service-learning approach to the development of leadership competencies. Senior students in a leadership and management course were taught basic leadership constructs then divided into small teams to organise a public health promotion event on the university campus. The students completed a leadership survey about themselves and peers, before and after the module. Student leadership behaviours were reported as higher at the end point. 72% felt that the skills learned would contribute to their careers and 52% felt they had developed delegation skills. The key to success was working in small groups on a real task with an outcome as opposed to simply learning about leadership theory.

Parmenter (2013) describes another integrated leadership module but focused on the availability of leadership placement opportunities. Senior students experienced classroom teaching and simulated learning and then undertook a clinical placement. Parmenter found that not all placements provided students with leadership learning opportunities and supervisors did not routinely support students in applying leadership concepts in practice. However, the students found the simulated experiences to be beneficial, a finding reinforced by Ross et al. (2018). Support for leadership learning from practice supervisors was highlighted in other studies: Pepin et al. (2011) reports the significance of good clinical role models; sadly Francis-Shama (2016) described students' descriptions of a 'fierce' culture in clinical practice with 'toxic' mentors and destructive leadership styles. Ross et al. (2018) adds how 'hostile' environments where bullying is evident inhibits leadership development.

Discussion

The findings raise several important issues about the preparation of nursing students for leadership roles when newly qualified. Despite a lack of consensus on the definition of leadership in nursing, this review revealed some agreement about the knowledge, skills and behaviours that should be addressed in leadership education. What varied more was the pedagogical methods used to deliver this, the extent of its integration throughout the nursing programme and the nature of collaborative academic-practice working to ensure good quality clinical practice supervision.

Pedagogical approaches

This review highlighted several positive pedagogical approaches to support the development of leadership competence in nursing students. For example, the value of styles similar to an active learning approach was advocated in several studies. Action learning (Revans, 1971) is a dynamic way to bring people together to support, exchange ideas and challenge each other in order to learn. Examples from the review include Demeh and Rosengren (2015) who used a 'problem solving' approach to integrate theoretical leadership concepts with practical application. Similarly, Foli et al. (2014) proposed 'Service Learning' which afforded students opportunities to trial leadership skills within a project focused on community health education. These semester long group projects give opportunities for students to evaluate both their own leadership qualities and those of their peers. Action learning is helpful to leadership education as it expects the 'facilitator' to take a reduced role, as leadership is shared across the learning group (Pedler & Abbott, 2013). This enables all group members to develop leadership skills in a safe environment, which they can then apply in the clinical setting. The findings indicate that such methods promote theory-practice integration and thus add value to leadership education.

Leadership modules versus integrated leadership education

This review revealed a tendency to situate learning about leadership in the final year of undergraduate nursing programmes. Only Pepin et al. (2011) suggested a more staged approach across all years of undergraduate programmes. Final year leadership modules may give the impression that leadership is a concept linked to seniority. It is of concern that some students viewed leaders as 'stand-alone' and leadership was not seen as a quality to be shared across teams (Francis-Shama, 2016). This view is at odds with models such as the Healthcare Leadership Model in

the UK (NHS, 2013); unfortunately in the UK National Health Service, hierarchical structures prevail, so it is perhaps unsurprising that the UK students in the Francis-Shama study perceived leadership as an issue for the chosen few and not for the many.

In contrast, staging leadership learning over an extended period in line with a spiral curriculum approach, could be helpful. Bruner's (2009) spiral approach suggests that students need to revisit concepts and skills regularly but each time the complexity of the learning should increase. Students are encouraged to link new learning to old understandings, using an experiential approach to development. Postponing leadership learning until the latter stages of programmes does not afford sufficient time to understand the theories and develop self-learning. Students need opportunities to learn about leadership skills/theories but also to develop understanding and awareness of themselves as practitioners. This links to the concept of self-leadership, where students learn not only to manage themselves but also workplace stressors. Self-leadership is defined as 'having a developed sense of who you are, what you can do, where you are going coupled with the ability to influence your communication, emotions and behaviours on the way to getting there' (Bryant & Kazan, 2012: p7). Given common nurse leadership roles on qualification, such personal insights may enable a nurse to lead compassionately with self-awareness and support resilience. Positioning leadership 'content' only in the final year of programmes, leaves little time for this self-development.

Extent of collaborative academic-practice working

The review highlighted clear benefits of student exposure to positive leadership practices during clinical placements. Several studies highlighted that observing leadership roles in action seems a key objective of clinical placements in order to integrate leadership theory with practical application. Learning from experienced colleagues can be helpful in terms of modeling positive leadership behaviours. Role modelling can be an effective way to support learning about leadership in the clinical environment, a finding supported by this review (Foli et al., 2014; Francis-Shama, 2016). Role modelling has been shown to be a positive educational method and one which is valued by nursing students (Jack, Hamshire, & Chambers, 2017). An important quality of a role model is being confident in the abilities of another to

succeed, for example when trialling new behaviours (Hayajneh, 2011). This approach could be valuable when for example, nursing students are trialling leadership during clinical placement settings.

However, this review showed limited opportunities to 'learn to lead' and students were not encouraged to trial leadership behaviours (Parmenter, 2013). Educators might struggle with their responsibility to support students in practice (O'Driscoll, Allan, & Smith, 2010) perhaps due to heavy workloads or skills deficits. Some nursing students were exposed to negative cultures during clinical placements, ones which included bullying and horizontal violence (Ross et al., 2018). Regrettably, Nicotera and Clinkscales (2010) suggest that bullying is viewed as an acceptable aspect of nursing practice and students often report being ignored and humiliated by registered colleagues (Rosser et al., 2019). This is problematic not least because nursing students' desire to fit in with the prevailing culture is strong and strengthens on qualification (Armstrong, 2008). There is a risk then, that newly qualified nurses go on to treat others in the way they have been treated themselves, perpetuating an ongoing cycle of bullying.

Limitations

Many of the studies were undertaken in single institutions with limited sample sizes and are therefore not generalisable. Nonetheless studies using qualitative approaches revealed rich data and possible transferability may be judged. The retrieved articles were solely in the English language which potentially excludes useful work. Non-research literature was excluded from the review which could have revealed understandings and practice development innovations that may have added value to this review. However, the review team favoured the importance of compiling the research evidence on the topic in order to identify gaps for future research work.

Conclusion

This review has revealed that leadership education depends on expert input from both academic and practice-based educators. This is a challenge given the pressures of contemporary practice. The importance of leadership to the quality of care provision is undisputed, however there is a limited amount of research on the

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preparation of undergraduate nursing students for leadership roles. Moreover, due to the complexity of healthcare systems, straightforward answers to leadership preparation will not suffice. Whilst the development of evidence-based leadership curricula is clearly essential, integration with clinical practice experience is critical to successful implementation. It is therefore recommended that collaborative academic-practice research partnerships to explore the real-world context of nurse leadership would strengthen and inform meaningful education for future nurse leaders. Rather than continuing to simply advocate further research, we suggest alongside a zero tolerance of bullying cultures, a shift to actively include all partners to design, plan and implement new approaches to address this complex issue.

References

- Al-Dossary, R. N., Kitsantas, P., & Maddox, P. J. (2016). Residency Programs and Clinical Leadership Skills Among New Saudi Graduate Nurses. *J Prof Nurs, 32*(2), 152-158. doi:10.1016/j.profnurs.2015.10.004
- Arksey, H., & O'Malley, L. (2005). Scoping studies: towards a methodological framework. *International Journal of Social Research Methodology: Theory and Practice, 8*(1), 19-32. doi:10.1080/1364557032000119616.
- Armstrong, N. (2008). Role modelling in the clinical workplace. *British Journal of Midwifery, 16*(9), 596-603.
- Bianchi, M., Bagnasco, A., Bressan, V., Barisone, M., Timmins, F., Rossi, S., Sasso, L. (2018). A review of the role of nurse leadership in promoting and sustaining evidence-based practice. *J Nurs Manag, 26*(8), 918-932. doi:10.1111/jonm.12638
- Brown, A., Crookes, P., & Dewing, J. (2015). Clinical leadership in pre-registration nursing programmes--an international literature review. *Contemp Nurse, 51*(1), 39-55. doi:10.1080/10376178.2015.1095055
- Brown, A., Crookes, P., & Dewing, J. (2016). Clinical leadership development in a pre-registration nursing curriculum: What the profession has to say about it. *Nurse Educ Today, 36*, 105-111. doi:10.1016/j.nedt.2015.08.006
- Bruner, J. S. (2009). *The Process of Education: Revised Edition USA*. Cambridge: Harvard University Press.

Bryant, A., & Kazan, A. (2012). *Self-Leadership: How to Become a More Successful, Efficient, and Effective Leader from the Inside Out*. McGraw Hill

Buchan, J., Shaffer, F. A., & Catton, H. (2018). *Policy brief: Nurse Retention*. Retrieved from

Carragher, J., & Gormley, K. (2017). Leadership and emotional intelligence in nursing and midwifery education and practice: a discussion paper. *J Adv Nurs*, 73(1), 85-96. doi:10.1111/jan.13141

Chappell, K. B., Richards, K. C., & Barnett, S. D. (2014). New graduate nurse transition programs and clinical leadership skills in novice RNs. *J Nurs Adm*, 44(12), 659-668. doi:10.1097/NNA.0000000000000144

Dalley, K., Candela, L., & Benzel-Lindley, J. (2008). Learning to let go: the challenge of de-crowding the curriculum. *Nurse Educ Today*, 28(1), 62-69. doi:10.1016/j.nedt.2007.02.006

Demeh, W., & Rosengren, K. (2015). The visualisation of clinical leadership in the content of nursing education--a qualitative study of nursing students' experiences. *Nurse Educ Today*, 35(7), 888-893. doi:10.1016/j.nedt.2015.02.020

Faculty of Medical Leadership and Management (2015). *Leadership and Leadership Development in Health Care: The Evidence Base*. Retrieved from https://www.kingsfund.org.uk/sites/default/files/field/field_publication_file/leadership-leadership-development-health-care-feb-2015.pdf

Foli, K. J., Braswell, M., Kirkpatrick, J., & Lim, E. (2014). Development of leadership behaviors in undergraduate nursing students: a service-learning approach. *Nurs Educ Perspect*, 35(2), 76-82.

Francis-Shama, J. (2016). Perceptions of leadership among final-year undergraduate nursing students. *Nurs Manag (Harrow)*, 23(7), 35-39. doi:10.7748/nm.2016.e1535

Francis, R. (2013). *Report of the Mid Staffordshire NHS Foundation Trust Public Inquiry*. . Retrieved from <https://webarchive.nationalarchives.gov.uk/20150407084231/http://www.midstaffspublicinquiry.com/report>

Hatlevik, I. K. (2012). The theory-practice relationship: reflective skills and theoretical knowledge as key factors in bridging the gap between theory and practice in initial nursing education. *J Adv Nurs*, 68(4), 868-877. doi:10.1111/j.1365-2648.2011.05789.x

Hayajneh, F. (2011). Role model clinical instructor as perceived by Jordanian nursing students *Journal of Research in Nursing*, 16(1), 23-32.

doi:<https://doi.org/10.1177/1744987110364326>

Hendricks, J. M., Cope, V. C., & Harris, M. (2010). A leadership program in an undergraduate nursing course in Western Australia: building leaders in our midst. *Nurse Educ Today*, 30(3), 252-257. doi:10.1016/j.nedt.2009.12.007

International Council of Nurses (2019). Strategic Plan 2019-2023. Retrieved from <https://www.icn.ch/sites/default/files/inline-files/Strategic%20plan.pdf>

Jack, K., Hamshire, C., & Chambers, A. (2017). The influence of role models in undergraduate nurse education. *J Clin Nurs*, 26(23-24), 4707-4715. doi:10.1111/jocn.13822

Jack, K., Hamshire, C., Harris, W. E., Langan, M., Barrett, N., & Wibberley, C. (2018). "My mentor didn't speak to me for the first four weeks": Perceived Unfairness experienced by nursing students in clinical practice settings. *J Clin Nurs*, 27(5-6), 929-938. doi:10.1111/jocn.14015

Leal, L. A., Soares, M. I., Silva, B. R. d., Bernardes, A., & Camelo, S. H. H. (2017). Clinical and management skills for hospital nurses: perspective of nursing university students. *Revista Brasileira de Enfermagem*(suppl 4), 1514-1521.

Ledlow, G., , & Coppols, N. (2014). *Leadership for Health Professionals: Theory, Skills, and Application*. (M. Sudbury Ed. 2nd ed.): Jones & Bartlett Learning.

Lekan, D. A., Corazzini, K. N., Gilliss, C. L., & Bailey, D. E., Jr. (2011). Clinical leadership development in accelerated baccalaureate nursing students: an education innovation. *J Prof Nurs*, 27(4), 202-214. doi:10.1016/j.profnurs.2011.03.002

Marcellus, L., Duncan, S., MacKinnon, K., Jantzen, D., Siemens, J., Brennan, J., & Kassam, S. (2018). The Role of Education in Developing Leadership in Nurses. *Nurs Leadersh (Tor Ont)*, 31(4), 26-35. doi:10.12927/cjnl.2019.25758

Middleton, R. (2013). Active learning and leadership in an undergraduate curriculum: How effective is it for student learning and transition to practice? *Nurse Educ Pract*, 13(2), 83-88. doi:10.1016/j.nepr.2012.07.012

Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & Group, P. (2009). Preferred reporting items for systematic reviews and meta-analyses: the PRISMA Statement. *Open Med*, 3(3), e123-130.

NHS Leadership Academy (2013). Healthcare Leadership Model. The Nine Dimensions of Leadership Behaviour. Retrieved from <https://www.leadershipacademy.nhs.uk/wp-content/uploads/2014/10/NHSLeadership-LeadershipModel-colour.pdf>

Nicotera, A. M., & Clinkscales, M. J. (2010). Nurses at the nexus: a case study in structural divergence. *Health Commun*, 25(1), 32-49.
doi:10.1080/10410230903473516

Nursing and Midwifery Council (2013). *NMC Response to the Francis Inquiry*. Retrieved from <https://www.nmc.org.uk/globalassets/sitedocuments/francis-report/nmc-response-to-the-francis-report-18-july.pdf>:

O'Driscoll, M. F., Allan, H. T., & Smith, P. A. (2010). Still looking for leadership--who is responsible for student nurses' learning in practice? *Nurse Educ Today*, 30(3), 212-217. doi:10.1016/j.nedt.2009.12.012

OECD (2017). *OECD Caring for Quality in health. Lessons Learnt from 15 Reviews of Care Quality*. Retrieved from <https://www.oecd.org/els/health-systems/Caring-for-Quality-in-Health-Final-report.pdf>

Parmenter, N. L. (2013). *Teaching senior nursing students leadership core competencies*. Walden University, Minneapolis.

Pedler, M., & Abbott, C. (2013). *Facilitating Action Learning: A Practitioners Guide*. Berkshire:: McGraw Hill.

Pepin, J., Dubois, S., Girard, F., Tardif, J., & Ha, L. (2011). A cognitive learning model of clinical nursing leadership. *Nurse Educ Today*, 31(3), 268-273.
doi:10.1016/j.nedt.2010.11.009

Peters, M., Godfrey, M. C., P., , Khalil, H., McInerney, P., Parker, D., & Soares, C. B. (2015). *Guidance for conducting systematic scoping reviews. In The Joanna Briggs Institute Reviewers' Manual 2015*. . Retrieved from Adelaide, Australia:

Revans, R. (1971). *Developing Effective Managers*. New York: Praeger.

Ross, C., Olson, J. K., Eastlick Kushner, K., Murad, S. S., Leung, W. S. W., Daniels, S., Eaton, T. (2018). Student Preparation for Nursing Leadership: Lessons from an Undergraduate Programs Review. *Int J Nurs Educ Scholarsh*, 15(1). doi:10.1515/ijnes-2017-0039

Rosser, E. A., Scammell, J., Heaslip, V., White, S., Phillips, J., Cooper, K., Hemingway, A. (2019). Caring values in undergraduate nurse students: A qualitative longitudinal study. *Nurse Educ Today*, 77, 65-70. doi:10.1016/j.nedt.2019.03.011

- Saarikoski, M., Marrow, C., Abreu, W., Riklikiene, O., & Ozbicakci, S. (2007). Student nurses' experience of supervision and Mentorship in clinical practice: a cross cultural perspective. *Nurse Educ Pract*, 7(6), 407-415. doi:10.1016/j.nepr.2007.02.006
- Scammell, J. (2019). The implications of nurse shortages. *Br J Nurs*, 28(3), 208. doi:10.12968/bjon.2019.28.3.208
- Scully, N. J. (2015). Leadership in nursing: The importance of recognising inherent values and attributes to secure a positive future for the profession. *Collegian*, 22(4), 439-444.
- WHO (2016). Global Strategic Directions for Strengthening Nursing and Midwifery 2016-2020.

Table 1: Characteristics of studies.

Author(s)/Year/Country	Aims	Study design	Participants /settings	Key findings and outcomes
Brown, et al. (2016), Australia	To identify the nursing profession's views on proposed indicative curriculum content for clinical leadership development in a pre-registration nursing degree in Australia.	Multi-method research. Pilot study.	347 clinically-based registered nurses; 163 managers and 44 academics. Clinical setting and university	Consensus amongst professionals about relevant and important leadership content in pre-registration nursing programmes. Findings could inform curricula design. The survey could be used as an audit tool.
Démeh, W. & Rosengren, K. (2015), Jordan	To describe nursing students' experiences of clinical leadership during their last year of nursing programme.	Descriptive qualitative study.	32 nursing students. Faculty of Nursing	Described students' clinical leadership experiences during the final year, specifically following a clinical leadership module of nursing programme. Overarching category: clinical leadership-safety in being a nurse; three subcategories: eye-opener, role model and bridging the gap. Students reported a better understanding of transition process from student to registered nurse. Clinical leadership module argued to have potential to bridge the gap between theory and practice in nursing. Educational stakeholders focus must be on learning needs to ensure graduation of skilled nurses.
Foli, et al. (2014), USA	To determine leadership behaviours developed by nursing students and peers	A pretest-posttest design. Quantitative study.	65 baccalaureate nursing students from senior level course.	Integrating service-learning into a leadership course is an effective approach to the development of

Author(s)/Year/Country	Aims	Study design	Participants /settings	Key findings and outcomes
	before and after a service-learning experience.		Nursing school	leadership behaviours among undergraduate nursing students.
Francis-Shama, J. (2016), UK	To explore nursing students' perceptions of leadership before qualifying and how prepared they felt to take on leadership roles.	Straussian grounded theory approach. Qualitative study.	20 final year undergraduate nursing students. Nursing school.	Students view leadership in terms of stand-alone leaders. They value leaders who discharge the role with integrity and respect. Students were disengaged from learning leadership theory. Preparation for leadership in clinical was compromised, due to poor clinical learning environments with negative role models.
Leal, et al. (2017), Brazil	To analyse nursing students' perceptions of what management and leadership skills could be acquired in hospital settings during their nursing programme. To investigate strategies for the development of these skills.	Exploratory qualitative study.	40 nursing students. Nursing school.	Management and leadership skills could be learned and developed at undergraduate level in clinical settings. University programme contributed theory although insufficient around management of resources. Students overall felt inadequately prepared to be a leader.
Lekan et al. (2011), USA	To describe the design, implementation and evaluation of the Clinical Leadership Education Innovation model (CLEI).	Mixed-Methods design.	56 Graduate students completing nursing baccalaureate programme. Nursing school and Clinical Setting.	The CLEI model increased self-efficacy in nursing students for leadership competencies. Nursing Assistants (taught by the students) improved systematic observations of patients with heart failure thus quality

Author(s)/Year/Country	Aims	Study design	Participants /settings	Key findings and outcomes
				<p>of patient care.</p> <p>Participation in bedside clinical teaching gave students a better understanding of how RNs in practice delegate tasks and supervise care.</p> <p>CLEI facilitated in nursing students the development of leadership skills such as establishing respectful, collaborative, and cooperative relationships with paraprofessional staff and to promoting bidirectional communication within those relationships.</p>
Parmenter, N. L. (2013), USA	<p>Evaluate the quality and availability of practice opportunities for senior nursing students to learn to lead.</p> <p>To explore undergraduate nurses' experiences and perceptions of the viability of using simulation to teach leadership skills.</p>	<p>Cross-sectional design. Qualitative study.</p>	<p>15 undergraduate nursing students. Clinical settings.</p>	<p>Wide variation in learning experiences. Students perceptions: Clinical experiences did not routinely provide opportunities to apply concepts learned in classroom. Preceptors (clinical supervisors) not available/willing to provide appropriate learning experiences. Simulated experiences enhanced the learning of leadership skills.</p>
Pepin, et al. (2011), USA	<p>To develop a Cognitive learning Model (CLM) of clinical nursing leadership competency from the</p>	<p>Interpretative phenomenological study design.</p>	<p>32 baccalaureate students from three-year undergraduate programme: 10 first year; 10</p>	<p>The CLM of clinical nursing leadership that emerged from the analysis represents the development</p>

Author(s)/Year/Country	Aims	Study design	Participants /settings	Key findings and outcomes
	beginning of a nursing programme to expert nurse level.	Qualitative study.	second year and 12 third year. 21 nurses from two clinical settings: 6 new nurses and 15 expert nurses. Clinical settings and nursing school<	of leadership in five stages: 1st stage: Awareness of clinical leadership in nursing; 2nd stage: Integration of leadership in action; 3rd stage: Active leadership with patient/family and colleagues; 4th Stage: Active leadership with team; 5th stage: Embedded clinical leadership that extends to organisational level and beyond. The CLM could inform nurse leadership education and evaluation strategies.
Ross, et al. (2018), Canada	To inform comprehensive undergraduate curricular revision. Sub-section of full study is focus of article: To describe perceptions about nursing undergraduate preparation for leadership.	Descriptive design; sub-study of large multi-phased cross sectional mixed-methods study.	Undergraduate students, programme graduates, stakeholders from practice settings, employed graduates and faculty members. Clinical settings and nursing school	Elements of organisational support and personal resources that influence leadership development and practice should be a focus of curricular revision: Organisations need to address student exposure to practice settings with cultures that may tolerate incivility and bullying. Greater collaboration between educational and clinical agencies may lead to mutually beneficial strategies to support nursing leadership development.

