

Learning Principles' Utilisation in Parent Education Practice: A Scoping Review of the Literature

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Purpose: The purpose of this presentation is to present the synthesis of literature from a scoping review that identified how learning principles are reported, implemented and evaluated in nurses' and health professionals' parent-education practice, to identify gaps and inform future research to improve nursing practice and potentially global health outcomes. Health professionals were included in order to capture relevant literature not described in nursing. Despite parent-education being a key professional role of nurses globally, there is limited literature guiding nurses to understand better how people learn. In educational psychology, robust evidence has long identified that the implementation of learning principles into teaching practice creates effective long-term learners, capable of analysing situations and problem solving, whatever the context. Marzano et al.'s (1997) five Dimensions of Learning, are an integrated package, encompassing the essential elements of learning: attitude and perception, integrating and acquiring knowledge, extending and refining knowledge, applying knowledge meaningfully and developing productive habits of mind. Although a teaching guide, these dimensions align with the clinical reasoning processes and with parent-education practice in healthcare. For example, nurses facilitate effective parent learning through explanation, demonstration and feedback, helping parents develop declarative and procedural knowledge, practical, problem-solving and decision-making skills. Parents find meaning in their learning, build confidence and capability to apply their knowledge and skills and to develop productive habits of mind, necessary to provide optimal care of their child (Thompson & Thompson 2014). This is especially important for parents, whether they are developing positive parenting skills or caring for children with long-term health conditions.

Currently, the nursing literature highlights varied interpretations of the learning process, with limited descriptions of how new and experienced nurses facilitate learning in practice; it also suggests that nurses are under-prepared. Kaufman et al. (2013) identified that health professionals lack understanding of how people gain knowledge and understanding in educational interventions, re-igniting an issue that La Duke (2000) had suggested was caused by nurses being unable to codify the cognitive, interpersonal aspects of care, although there was explicit, common language describing their technical, clinical tasks. This issue has not been explored, with a paucity of descriptions of 'how' nurses facilitate cognitive learning in their practice. Further, no common language is apparent to help nurses articulate the higher-level cognitive aspects of their practice. This scoping review served to address this knowledge gap.

Methods: This review, conducted between March 2017 and June 2017, used Arksey and O'Malley's framework (2005), and focussed on English language literature, published between 1998-2017. Embase, MEDLINE, Pubmed, Informit, CINAHL, The Cochrane Library, Scopus, Joanna Briggs Institute, Psych-Info and ERIC were searched. Grey literature and the reference lists of the selected articles were also hand-searched to locate additional references. As this was a scoping review, the quality of the studies was not formally assessed. A second reviewer (ML) used the liberal accelerated approach (Khangura et al. 2012) to review 10% of included and excluded abstracts. This affirmed the principal author's (DT)

selections; where there were disagreements, these were discussed until consensus was reached. If consensus was not reached the principal supervisor (EM) adjudicated. Marzano et al.'s (1997) Dimensions of Learning framework provided an innovative 'lens', to guide the exploration of how clinicians facilitate cognitive aspects of learning and provide a 'language' to articulate the findings.

Results: The search identified 2,692 papers. Following removal of duplicates and papers not meeting the inclusion criteria, 89 were suitable for review. The studies originated in 12 countries, used a diverse range of methodological characteristics, covered a wide range of health conditions and parent-education situations. The health professionals involved were predominantly nurses (n=51: 57.3%). Less than half (34/89, 38%) of the studies showed evidence that nurses and health professionals were cognisant of all five Dimensions of Learning concepts, albeit, only implicitly. There were varied interpretations of how parents learn and little recognition of the significance of helping parents develop higher-level thinking skills, such as problem-solving and decision-making. No consistent meaning of the term 'learning principles' was identified, although the adult learning construct was termed 'principles' and perceived as the learning process in 13/89 (14.6%) of studies. Studies that combined adult learning principles with at least one other theoretical construct, 8/89 (10.1%) demonstrated successful learning outcomes. Thematic analysis revealed four overarching themes: divergent conceptualisations of learning; divergent learning expectations; barriers and enablers to learning and limited evaluation of learning. Health literacy, learning styles and learning needs were commonly perceived as constituting the cognitive learning process. However, the studies did not include evidence of nurses or health professionals facilitating parent skill development in analysis, problem-solving and decision-making, which parents need to be able to apply knowledge meaningfully and on an ongoing basis. In these studies, parents often reported their needs were not met. Assessment of clinical outcome measures was perceived as 'demonstrating effective parent learning' in the quantitative and mixed methods papers. In contrast, the qualitative studies demonstrating that parents had become effective problem-solvers had evaluated parent learning, understanding and skill development by seeing parents successfully undertake treatments or tasks repeatedly and having parents answer scenario-based questions.

Conclusion: A significant re-think is needed in the way nurses and health professionals are prepared to deliver effective parent-education practice. Indeed, there is a need to explore how nurses and health professionals use learning principles in practice to identify whether a 'language' exists to codify practice. Such an evaluation has implications for nursing practice by providing a crucial step towards a more complete understanding of the cognitive aspects of parent-education. Once identified, appropriate, innovative educational programs can be created to support nurses and health professionals in applying learning principles to parent-education practice.

Title:

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Keywords:

cognitive learning, learning principles and parent education

References:

** seminal texts

Arksey, H. & O'Malley, L. (2005). Scoping studies: towards a methodological framework, *International Journal of Social Research Methodology*. 8 (1), 19-32. DOI:10.1080/1364557032000119616 **

La Duke, S. (2000) NIC puts nursing into words, *Nursing management*. 31 (2), 43-44. **

Lahl, M., Modic, M. & Siedlecki, S. (2013). Perceived Knowledge and Self-Confidence of Pediatric Nurses as Patient Educators. *Clinical Nurse Specialist*, 27 (4), 188-93.

Kaufman J., Synnot A., Ryan R., Hill, S., Horey, D., Willis, N., Lin, V. & Robinson, P. (2013). Face to face interventions for informing or educating parents about early childhood vaccination. *Cochrane Database of Systematic Reviews*, no. 5. Art. No.: CD010038. DOI: 10.1002/14651858.CD010038.pub2.

Khangura, S., Konnyu, K., Cushman, R., Grimshaw, J. & Moher, D. (2012). Evidence summaries: the evolution of a rapid review approach, *Systematic Reviews*. 1 (10) open access [DOI.org/10.1186/2046-4053-1-10](https://doi.org/10.1186/2046-4053-1-10)

Marzano, R., Pickering, D. & Arredondo, D. (1997). *Dimensions of learning teachers' manual* (2nd ed.). ASCD; MREL, Alexandria, Va.: Denver, Colorado. **

Svavarsdottir, M., Svavarsdottir, A. & Steinsbekk, A. (2015). How to become an expert educator: a qualitative study on the view of health professionals with experience in patient education. *BMC Medical Education*, 15 (87) open access, DOI: [10.1186/s12909-015-0370-x](https://doi.org/10.1186/s12909-015-0370-x)

Thompson, D. & Thompson, M. (2014). Knowledge, instruction and behavioural change: building a framework for effective eczema education in clinical practice. *Journal of Advanced Nursing*, 70 (11), 24832494. DOI:[10.1111/jan.12439/pdf](https://doi.org/10.1111/jan.12439/pdf)

Abstract Summary:

The session will challenge nurses to reflect upon their parent-education practice, identifying if they understand the significance of cognitive learning principles to long-term, effective learning. Nurses can consider how they implement learning principles into practice, to facilitate parents' learning to provide optimal care of their child.

Content Outline:

Introduction: The presentation will highlight the paucity of literature guiding nurses to understand better how people learn in nurses' patient and parent education practice, despite education being a core nursing skill. The limited descriptions of how nurses utilise their understanding of the cognition of learning, emphasised the need for a scoping review of the literature which explored the learning principles nurses implement in their parent education practice.

Body: The presentation will highlight issues confounding nursing practice and discuss findings of the scoping review which showed that literature on parent education focuses on commonly on identifying learning needs, health literacy, learning styles and creating relevant resources, but these are only part of an effective cognitive learning process (Thompson & Thompson 2014).

Delegates will be able to better understand why nurses need to enable parents' higher-level thinking skills: parents must not only be ready and able to learn, but also develop declarative and procedural knowledge, practical, problem-solving and decision-making skills. These are required for the learning of the treatments and management processes necessary to care for their child, to become productive 'habits of mind' and part of everyday life.

The presentation content will demonstrate that despite successful nurse directed parent education being well described, there is little description of how nurses enact the cognitive learning process and there appears to be no definitive meaning of cognitive learning principles in nursing.

The presentation will report on the findings of a scoping review which explored the literature to identify how nurses are using cognitive learning principles in their parent education practice. Fourteen databases

from health, psychology and education, grey literature and pearling of reference lists located 2692 papers. It will be explained to delegates why Marzano et al.'s (1997) Five Dimensions of Learning Principles, which encapsulate cognitive learning practice in teaching, were used as the 'lens' to guide the exploration of how nurses facilitate cognitive learning, and how they provided a 'language' to articulate the findings. A second reviewer used the liberal accelerated approach (Khangura et al. 2012) to review 10% of included and 10% of excluded studies. Consensus was reached on 89 papers.

Results revealed that less than half of the papers (34/89) showed that nurses were cognisant of cognitive learning principles. There were varied interpretations of what cognitive learning entailed, with less than half recognising the significance of helping parents gain higher level thinking skills to facilitate successful, long-term learning outcomes and parents' skills development.

The thematic analysis revealed four themes: divergent conceptualisation of learning, divergent learning expectations, barriers and enablers to learning and evaluation of cognitive learning by clinical outcome measures and these, together with the sub-themes will be explained.

Addressing Health literacy, learning needs and learning styles, was commonly assumed to be 'the learning process when it constitutes only a part of it (Thompson & Thompson 2014). The studies demonstrating that parents had learned effectively and could confidently and capably carry out treatment and management strategies were qualitative studies. Nurses had facilitated parents' knowledge, skill development, capability and confidence, where parents could answer scenario-based questions.

Conclusion: Delegates will gain a better understanding of the issue from this review, which showed that although some nurses are providing successful parent education, 'how' they facilitate cognitive learning in their nursing practice, is not well described. The review suggests there is need to explore nurse parent education practice through observation and subsequent interviews to identify a 'language' to codify practice. Delegates can further reflect on the implications for evidence-based nursing practice and research, with this review providing a crucial step towards a more complete understanding of how people learn effectively in parent-education practice.

First Primary Presenting Author

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Professional Experience: 2006-current UniSA Lecturer, under-graduate and post graduate. 2008-current Paediatric Eczema specialist Nurse 1988-2012 Allergy specialist Nurse Allergy SA 2016- PhD candidate 2013 Master of Nursing – UniSA I conduct free evidence-based eczema education nurse and community workshops. I have authored/co-authored 11 allergy and eczema journal and text-book publications, 30 conference presentations Deryn's co-authored and published eczema education framework has been adapted to an Electronic nurse training module by the Royal College of Nursing UK. Associate member Australian Society of Clinical Immunologists and Allergists (ASCIA), Australian Dermatology Nurses Association (state representative 2010-2013; Newsletter editor 2015,16,17-) Australian Nursing & Midwifery Federation SA Branch British Dermatology Nursing Group 2005 Winner of

SA Premier's Nursing scholarship: to explore nurse-led eczema centres of excellence in UK to establish a service in SA. 2015 Connecting for Confidence Teaching and Learning Grant (\$10,000)

Author Summary: Deryn is a nurse specialist in allergy and eczema & lecturer at University of South Australia. She runs a paediatric nurse-directed eczema-education clinic, teaches hospital nurses, university students and provides free public eczema education workshops. Her PhD is exploring how nurses understand the cognition of learning in their parent-education practice, and parents' experiences. She is a member of professional allergy and eczema nursing bodies, has authored 11 publications and presented at Australian and international conferences.

Second Author

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Professional Experience: Professor May is the Dean: Clinical Education and Equity in the Division of Health Sciences. The role has a strategic focus on the student experience and quality of the future healthcare workforce, clinical education, equity and excellence and partnerships. Originally trained as an occupational therapist, Esther obtained a PhD in medical sciences from the University of Gothenburg (Sweden) in 1992 and has been an active educator and researcher with achievements that include 18 PhD and Master by Research student completions. Esther has a keen interest in health workforce matters, the role of education in producing the future health workforce. Esther oversees government funded grants targeting better rural clinical training, simulated learning and clinical supervision. Esther's experience in management and leadership is extensive. Esther is currently on the Executive of the Australian Council of Deans of Health Sciences (ACDHS)

Author Summary: Professor May is the principal supervisor of the PhD candidate submitting the scoping review. Professor May is the Dean: Clinical Education and Equity in the Division of Health Sciences. Her expertise in clinical education, equity and excellence and partnerships makes her an ideal principal supervisor. Originally trained as an occupational therapist.

Third Author

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Professional Experience: Dr Leach is a Senior Research Fellow with the Department of Rural Health, University of South Australia. He completed his Bachelor of Nursing (BN) degree (1994), a Diploma of Applied Science (Naturopathy) (1998), BN (Honours) (2000) and a Diploma of Clinical Nutrition (2008). Dr Leach completed his PhD in 2005, examining the clinical feasibility of Horsechestnut Seed Extract in venous leg ulceration management. Striving to improve the evidence-base and quality of complementary and alternative medicine (CAM), he has made significant contribution to health over 10 years, publishing over 90 journal articles, 4 book chapters and a textbook, attracting over 1120 citations. Dr Leach is on

several editorial boards, government committees and has been awarded competitive research grants close to \$1 million. He has a research fellowship with the Australian Research Centre for Complementary and Integrative Medicine in 2014. He is an Honorary Visiting Fellow at University of Technology, Sydney

Author Summary: Dr Leach has exceptional professional expertise in supervising PhD students in nursing and complementary and alternative medicine. His experience as a senior research fellow enables him to provide both qualitative and quantitative research methodology expertise, co-authoring a significant number of papers. He will not be attending the conference.

Fourth Author

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Professional Experience: Jennifer' philosophy is to foster a culture of excellence in nursing and midwifery practice, grounded in research evidence, critical enquiry, teamwork, innovation and person and family centred care, whilst adhering to the core values of Nursing and Midwifery. She is the executive director of Nursing and Midwifery at the Women's and Children's Health Network, is a registered nurse and midwife with extensive experience in both qualitative and quantitative research and also administration with SA Health. She has supervised a number of honours, masters and PhD students. She is an adjunct associate professor at the University of South Australia. Her publications have gained over 1000 citations.

Author Summary: Jennifer has extensive experience in research as well as the clinical setting, making her most suitable as a co-supervisor for this PhD study. She understands the importance of effective parent and patient education by nurses and health professional and the impact on optimal care.

Fifth Author

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Professional Experience: Before retiring Colleen was the Associate Head of the School of Nursing and Midwifery at University of South Australia and a senior lecturer. Her research and teaching career spanned over 30 years, with special interests in teaching and learning, evidence-based practice, critical thinking and reflection, public health, especially in developing countries, immunisation and allergy nursing. Her many publications have received over 200 citations and she has supervised masters and PhD students. She was involved in a WHO consultancy in Geneva developing global training programs for immunisation. Collaborations include Australian Catholic University, Monash, RMIT, University of Newcastle and La Trobe.

Author Summary: Colleen has significant qualitative and quantitative research experience, with a passion for teaching and learning related research activities. Her previous supervisions of nursing students undertaking PhD studies have all been successful. Her involvement in participatory learning programs brings additional expertise to this PhD research project supervision. Even in retirement, she is still active in research in teaching and learning.

