The influence of workplace culture on nurses' learning experiences: a systematic review of the qualitative evidence.

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Abstract

Background

A healthy workplace culture enables nurses to experience valuable learning in the workplace. Learning in the workplace is valuable as it can enable the provision of evidence based and continuously improving safe patient care, which is central to achieving good patient outcomes. Therefore, nurses need to learn within a workplace that supports the implementation of evidence based, professional practice and enables the best patient outcomes; the influence of workplace culture may play a role in this.

Objectives

To critically appraise and synthesize the best available qualitative evidence to understand both the nurse's learning experiences within the workplace, and the factors within the workplace culture that influence those learning experiences.

Inclusion criteria

Participants

Registered and enrolled nurses, regulated by a nursing and midwifery authority and/or recognised health practitioner regulation agency (or its international equivalent).

Phenomena of interest

The *nurse's learning experience,* either within an acute health care workplace, or within a workplace related learning environment and *the influence of workplace culture* on the nurse's learning experience (within the workplace, or workplace related learning environment).

Context

This review considered studies that included nurses working in an acute health care organization within a Western culture.

Studies

This review considered studies that focused on qualitative evidence and included phenomenological, grounded theory and critical theory research designs.

Search strategy

Published and unpublished studies in English from 1980-2013 were sought using a three-step search strategy.

Methodological quality

Methodological quality was assessed by two assessors using a standardized checklist from the

Joanna Briggs Institute (JBI) Qualitative Assessment and Review Instrument (QARI).

Data collection

Qualitative data was extracted from included papers using the JBI-QARI standardized data extraction tool.

Data synthesis

Qualitative research findings were pooled using the JBI QARI Instrument. This involved the aggregation and synthesis of findings to generate a set of categories which were then subjected to a meta-synthesis in order to produce a single comprehensive set of synthesized findings that could be used as a basis for evidence-based practice.

Results

Fourteen articles were identified following appraisal and a total of 105 findings (85 unequivocal and 20 credible) were extracted from included studies and grouped into eight categories based on similarity of meaning. Subsequently, categories were grouped into two synthesized findings. The two synthesized findings were as follows:

1. *Organizational influences*

Enabling nurses to demonstrate accountability for their own learning, along with clear organizational systems that provide resources, time, adequate staffing and support, demonstrates encouragement and value of nurses' learning and education.

2. *Relational Dynamics*

Nurses value their peers, expert nurses, preceptors, mentors and educators to facilitate and encourage their learning and professional development.

Conclusion

An optimal workplace culture is central for nurses to experience valuable and relevant learning in the workplace. To emphasize the importance of nurses' learning in the workplace, working and learning is understood as an integrated experience. Consequently, a dual system that enables nurses to demonstrate accountability for their own learning, along with clear organizational and educational systems is required to demonstrate the value in nurses' learning and education.

Declaration

I, Kate Davis, certify that this work contains no material that has been accepted for the award of any other degree or diploma in any University of any other tertiary institution, and, to the best of my knowledge and belief, contains no material previously published or written by any other person, except where due reference has been made in the text. In addition, I certify that no part of this work will, in the future, be used in a submission for any other degree or diploma in any university or other tertiary institution without the prior approval of the University of Adelaide and where applicable, any partner institution responsible for the joint award of this degree.

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Kate Davis
April 2015

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Finally, I would like to express my thanks and appreciation to my husband Luke and three children, who have all made the time and space for me to pursue my studies with passion and joy.

Chapter 1: Introduction to the thesis

Personal interest in the topic

Having worked in nursing education and staff development for some time, I have planned and delivered many education sessions and programs, both within the workplace, and within staff development departments. The workplace teaching sessions were all relevant to clinical or professional practice and have been both spontaneous, as in the case of mock and 'surprise' cardiac arrest sessions, or, were planned out for months in advance. Noticeably, some wards were committed beyond what you would expect in their attendance at education, others, were quite inconsistent in their ability to attend and make use of the education sessions. The attendance at education sessions went beyond individual motivation and it was clear that there were underpinning forces that either supported or hindered individuals and entire wards in their commitment to and attendance at continuing professional development and education sessions. This was the genesis for my search into understanding how nurses experienced learning in the workplace and what factors supported or hindered their experience.

Later in my career, a seminal experience in relation to workplace learning came about when I was leading the introduction of a PEERS© Support Program[1] at a large acute metropolitan hospital. 'PEERS©' is an acronym for Positive Encounters Ensures Retention & Safety – this is a model of clinical support to orientate, induct and sustain staff to work in a team environment. Three wards volunteered to take part in the project and this included an initial workplace culture assessment. The workplace culture assessment assisted in gauging the readiness of the ward to support the program, training, changes, and necessary staff development. One ward successfully implemented the PEERS© Support Program; however the other two wards had an unsuitable workplace culture and would not have been able to implement the PEERS© Support Program effectively. Instead, they were provided with organizational psychologist support, to build a healthy workplace culture. This initiated a real interest in understanding more about workplace culture, why it is important, and if and how it was relevant to nurses' learning.

Background

Learning in the workplace is valuable as it supports the development, scope and progression of nursing practice and is also linked with the regulatory requirements related to the nurse as a professional.[2-4] Additionally, nurses need to learn within a workplace that supports the implementation of evidence based, professional practice and enables the best patient outcomes; the influence of workplace culture may play a role in this.[5, 6]

Exploring the experience of nurses' learning in the workplace is important as it contributes another layer of understanding to the nurse's professional practice role. Furthermore, if examined within the context of patient care, this understanding also contributes to our knowledge of evidence based nursing care and good patient outcomes. Billet points to the suggestion that regarding learning in the workplace, working and learning are an integrated and contingent experience.[7]

Therefore, as we unravel the relationship between learning and working, it is necessary to explore the role that culture has on nurses' workplace learning. Workplace culture is well established as an influence on workplace learning.[8-12] Likewise the 'learning' environment has been well validated in its impact on nursing *students'* learning.[13-15] However, the literature that explores the link between culture and nurses' workplace learning experiences has not been satisfactorily synthesized. As nurses are the primary professional practitioners responsible for direct patient care, it is vital to understand this link. The understanding is vital because it can then set the scene for organizational and workplace, structure and system prescription that will support workplace learning, influence best practice, and thereby contribute to good patient outcomes.

Research Method

The systematic review process as prescribed by the Joanna Briggs Institute (JBI) was the selected methodology for this research. As a basis for understanding nurses' learning experiences within the workplace, and with a view to improving or making recommendations in relation to this, The JBI systematic review process was appropriate. The systematic review methodology enabled the synthesis of the best available qualitative evidence on the learning experiences of nurses within the acute health care workplace or organization.

In essence there were a number of primary research studies relating to *student* learning, workplace learning and factors influencing workplace learning including: culture, climate and the environment. Additionally, there were studies on nurse's experiences in relation to workplace learning. However, the literature was disparate and diverse and had not been reviewed through a systematic process with the specific objectives as outlined within this thesis.

The strength and relevance of the JBI systematic review process in relation to the systematic review within this thesis, lies in its protocols, tools and systems which facilitated the meta-aggregation of *qualitative* evidence. Furthermore, The JBI has a role in the 'global translation of research evidence into practice',[16](p.3) which would be the ultimate goal of recommendations resulting from this systematic

review. A search of the Cochrane Library, JBI Library of Systematic Reviews and PubMed databases did not reveal any previous or planned systematic reviews of qualitative evidence on this topic.

Objectives

The purpose of this review was to critically appraise and synthesize the best available qualitative evidence to understand the quality, value and type of learning the nurse experiences within the workplace. In particular, the review explored the relationship between the nurse's learning experience and the influence workplace culture can have on that experience within the clinical workplace or organization.

The structure of the thesis

This thesis will be presented in five chapters. The following is a brief outline of the purpose of each chapter.

Chapter 1, *Introduction to the Thesis* provides an introduction to the thesis topic, an understanding of the author's interest in the topic, and a brief background to the topic. It presents the review objectives and provides an overview of the thesis chapters.

Chapter 2, *Background*, focuses on the topic background, and is concerned with setting the scene for the thesis providing the reader with the context for the review objectives. Workplace and organizational culture are defined and the influence these can have on nurses' learning experiences is explored. It is also identified that nurses' *workplace or organizational learning* within the acute healthcare setting is significant, as it enables the provision of evidence based and continuously improving safe patient care, which is asserted to be central to achieving good patient outcomes.

Chapter 3, *Methodology and Methods,* describes the methodology and methods employed for the systematic review presented within this thesis. The JBI method for systematic review was undertaken and is described in detail with a discussion explaining the process's relevance to the selected topic.

Chapter 4*, Results,* presents the results from the systematic review, documenting the meta-aggregative process and resultant synthesized findings. This includes flow diagrams of the search process and tabular presentation of the relationship between underpinning findings, categories and synthesized statements. Additionally, summaries of each synthesised finding are presented with associated categories and selected findings and illustrations to detail how each synthesised finding was reached.

Chapter 5*, Discussion,* provides a discussion and analysis of the findings, categories and resultant synthesized statements. Based on the appraised literature, it examines the nurse's workplace learning experience and presents a detailed account of the forces within workplace and organizational culture that support or hinder those experiences, concluding that a healthy workplace culture is necessary for nurses to experience valuable and relevant learning in the workplace. Recommendations for clinical practice and research, and the relevance of transferring those recommendations into clinical practice are presented, which are based on the synthesised findings from this review.

Chapter 2: Background

Introduction

In order to provide contemporary, skilled, evidence based care, nurses need to be supported in their learning within the workplace and more broadly within their organization. In particular, nurses themselves need to be life-long learners and support the implementation of evidence based, professional practice to enable the best patient outcomes; however nurses also need to work within an organization and workplace that is supportive and enables this. Workplace culture may have a role in influencing this, particularly in relation to nurses' workplace learning experiences.[5, 6]

Culture is also defined and discussed in relation to the organization or workplace and the idea of climate as a force within culture is explored, particularly highlighting the historical debate in relation to culture and climate.[17]

In terms of learning experiences there are bodies of evidence related to nurses' learning and workplace culture but these have not been systematically reviewed, thereby providing the impetus for the review within this thesis. In particular, a qualitative methodology was selected to enable a deep understanding of nurses' learning experiences and the influence workplace culture has on these.

Workplace Culture

A healthy workplace culture enables nurses to experience valuable learning in the workplace.[8-12, 18] Learning in the workplace is valuable as it can enable the provision of evidence based and continuously improving safe patient care, which is central to achieving good patient outcomes.[5, 6, 19-23] Additionally, workplace learning is valuable as it informs the scope and progression of nursing practice and is also linked with the regulatory requirements related to the nurse as a professional.[2-4] Therefore, nurses need to learn within a workplace that supports the implementation of evidence based, professional practice and enables the best patient outcomes; the influence of workplace culture may play a role in this.[5, 6]

For the purposes of the systematic review within this thesis it is useful to provide a clear definition of culture as it relates to an organization, or part of an organization, such as a workplace.

In the organizational context Schein defines culture in the following way:

> The culture of a group can now be defined as a pattern of shared basic assumptions learned by a group as it solved its problems of external adaptation and internal integration, which has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think and feel in relation to these problems. [24](p.18)

Schein also noted that culture is an abstract and powerful force, but to be useful needs to be observable.[24] Therefore for the purposes of the review within this paper, although the term culture refers to the definition as stated above by Schein, it also relates to the following 'observable events and underlying forces' listed below:

- Observed behavioural irregularities when people interact
- Group norms
- Espoused values
- Formal philosophy
- Rules of the game
- Climate
- Embedded skills
- Habits of thinking, mental models, and/or linguistic paradigms
- Shared meanings
- "Root metaphors" or integrating symbols.[24](pp.14-16)

In relation to nurses' learning experiences, the forces listed above are relevant to workplace culture because they reflect issues, values or things that group members (or nurses) hold in common.[24] This is a significant point within this review, because the concept of culture implies a shared history or evolution that has contributed to the current structural stability, depth and breadth, within an organization and can have an impact on a nurse's learning experience.[24] Notably the impact can be significant; culture is an enduring force that continues, even when some members of an organization may depart.[24]

It is also noted that in the organizational research literature, there has been a historical debate on the meanings of, and differences and similarities between organizational culture and organizational climate.[17] It is therefore noted that adhering to the strict historical and theoretical paradigm differences between organizational culture and climate, was beyond the scope of this systematic review.[25] Instead, as Schein noted, climate is considered a factor within culture; therefore, organizational climate is

recognised as different from culture. Furthermore, within the context of this paper climate is one factor within overall organizational culture and contributes to and is a part of culture, but is not culture itself. Building on Schein's definition and in an effort to elucidate how culture is manifest in the workplace, it is useful to apply Ross-Walker's observation:

> Workplace culture (as a learned and shared phenomena) exists on two levels - the visible artefacts (i.e. physical structures and symbols, rituals and ceremonies, language, stories and legends), and the observable behaviours, where artefacts dictate the group's underlying behaviour and decision-making.[26](p.3084)

The above phenomena will be considered in terms of their influence on nurses' learning experiences. Also, having already noted that climate is a contributor to workplace culture, the significance of Snow's work on workplace climate is relevant to nurses' learning experiences within the workplace. Snow notes the following:

> Climate is one of the most powerful, yet overlooked, factors when determining the performance of a particular work team. In fact, it has been demonstrated that climate accounts for up to 30% of the variance in performance on a particular unit. [27](p.393)

As will later be explored, it is difficult to separate working or 'performance' from learning.[28] Therefore, extrapolating from Snow's statement above, and acknowledging that climate is a contributing force to workplace culture, understanding, defining, improving and maintaining a healthy workplace culture is relevant to *work performance*, as well as nurses' learning, evidence based practice and safe patient outcomes.[5, 6, 25, 27 21]

The relationship between organizational or workplace culture and all patient outcomes is not definitively established in the literature, [29-31] therefore, it was considered useful to explore the literature concerning a different relationship: that of the nurses' learning experiences and the influence on those experiences of workplace culture. Understanding what happens at the ward or unit based and individual level where learning takes place and care is provided is the key to understanding workplace learning and workplace and/or organizational culture. Furthermore, this may set the scene for a deeper understanding of workplace culture and patient outcomes into the future; good patient outcomes being a core concern of nursing practice.

In conducting a preliminary search for existing systematic reviews on this topic, reviews were identified that addressed the links between leadership,[32] nursing workloads,[26] professional practice,[33] cultural diversity,[34] team collaboration,[35] and workplace culture, but was silent on the relationship between nurses' learning and the influence of workplace culture.

Nurses' learning experiences in the context of the workplace

This systematic review seeks to understand the quality of the nurses' learning experiences in relation to workplace culture. In essence, there is a body of evidence and literature addressing learning and workplace culture,[36,37,38,39,4,40] however this has not been systemically considered to enable its application in the clinical context and provide recommendations for evidence based support of nurses' learning experiences within the workplace.

The review within this thesis, explores nurses' learning experiences both in the clinical workplace, and more broadly within the health care organization. In relation to learning within the workplace or organization Henderson noted 'Organizations, by their very nature, do not readily encourage new learning. Staff largely rely on established systems to perform their jobs with minimal resistance and stress'.[36](p.198) Therefore, recognizing and understanding the complexity of relationships and factors in the workplace and health care organization may be relevant to the promulgation of a healthy work culture within the workplace, thereby supporting nurses' learning.

When considering nurses' learning experiences and their association with implementing evidence based practice, Newman, Papadopoulos and Melifonwu[41] noted in their project on implementing evidence based practice into the health care organization that 'The results of the project correspond with findings from other studies of change into the organization of nursing practice, which suggests that structural organizational factors will be key determinants of the successful implementation of changes'.[41](p. 105) This supports the notion that understanding the influence of organizational factors, and possibly those associated with workplace culture, will provide insight into our understanding of changes required to support nurses' learning experiences within the workplace.

Research Method

The Joanna Briggs Institute (JBI) systematic review process was the particular methodology employed for this research. This thesis presents a systematic review with meta-aggregation of findings from 14 qualitative research papers using standard JBI protocols and methodology. This involved the

aggregation and synthesis of findings in order to produce a single comprehensive set of synthesized statements that could be used as a basis for evidence-based practice.

The pooling or meta-aggregative process used in the systematic review built strength and reinforcement between the papers' findings. JBI has been a pioneer in the field of evidence based health care and was instrumental in developing the system of meta-aggregation used in the systematic review within this thesis.[42] The effectiveness and reliability of meta-aggregation is supported by Korhonen[42] who notes that 'compared to single studies, synthesized studies produced using different methods provide a more comprehensive view'.[42](p.1028)

A qualitative methodology was selected to enable the understanding of nurses' learning experiences. Each nurse's learning experience is subjective and unique, however, with the pooling of these experiences using the meta-aggregative process, themes emerge that can point to a broader human experience, and these can be used to more reliably inform practice, policy and further research in relation to nurses' learning in the workplace. The core of this systematic review's methodology was that it enabled insight into and understanding of large scale individual experiences. Munn[43] draws on the literature regarding qualitative research to highlight the advantage of qualitative methodology:

> …qualitative systematic reviews that bring together the findings of multiple, original qualitative studies, also have an important role in evidence-based health care. Qualitative systematic reviews can address questions to inform healthcare professionals about issues that cannot be answered with quantitative research and data...[43]

Definition of terms

Registered Nurse

Refers to a Division 1 Registered Nurse, regulated by a nursing and midwifery board and/or recognised health practitioner regulation agency (or its international equivalent)[44].

Enrolled Nurse

Refers to a Division 2 Enrolled Nurse, regulated by a nursing and midwifery board and/or recognised health practitioner regulation agency (or its international equivalent)[44].

Western acute hospital or health care facility

A hospital or health care facility that provides tertiary care, which is health care from specialists in a large hospital. This includes a major hospital that usually has a full complement of services

including paediatrics, obstetrics, general medicine, gynaecology, various branches of surgery and psychiatry. This includes those hospitals originating from the West, particularly, the United States, Canada, Europe and Australia.

Con Qual

'ConQual' is an acronym for an approach to generate a qualitative 'summary of findings' table that aims to classify qualitative study findings with consideration of criteria relating to type of data and dependability and credibility of findings.

C.L.A.R.I.T.Y.[45]

An acronym for a cycle of translating evidence into practice:

Clarify the question being asked

Leadership support

Assess existing patterns and behaviours surrounding the question

Review existing evidence and potential barriers

Implement the needed changes

Timed re-assessment of implemented changes

Yearly review to assess the impact and sustainability of the implemented changes

Conclusion

The learning process is one of accommodation and assimilation,[7] hence, for nurses to provide contemporary, relevant, evidence based care it is essential that they are supported in their learning and particularly during workplace learning. As new nursing and related evidence and skills emerge, nurses need to engage with this knowledge, synthesize and apply it to practice. Moreover, in order to retain this new knowledge and skills and build capability of nursing staff, it is desirable to have nursing staff committed to lifelong learning. In order to have nurses with an active approach to their lifelong learning it is necessary to have a concomitant healthy workplace culture.[39]

In relation to the methodology of studies that were appraised and reviewed, for the purposes of this qualitative systematic review, the aim was to facilitate an increased *understanding* of nurses' learning experiences. Therefore, this systematic review considered research study designs that were broadly interpretive such as phenomenology, grounded theory, ethnography, action research and feminist research. Additionally, although the *primary* goal of this systematic review was not to *critique* workplace

cultures, if a clear understanding of nurses' learning experiences in the workplace is established, a call for change in workplace culture may be a future possibility.

Chapter 3: Methodology and Methods

Introduction

The systematic review process as detailed by the JBI was the selected methodology for the systematic review within this thesis. With an established and validated system of protocols, guidelines and software, the JBI is particularly equipped to enable the synthesis of qualitative research. The JBI process includes the rigorous and systematic steps of literature searching, research appraisal, and the process of meta-aggregation to synthesize the research and provide a foundation for evidence based recommendations for clinical practice.

As a basis for understanding nurses' learning experiences within the workplace, and with a view to improving or making recommendations in relation to this, the JBI systematic review process was selected. The systematic review methodology enabled the synthesis of the best available qualitative evidence on the learning experiences of nurses within the acute health care workplace or organization.

Systematic review methodology

Historically, quantitative, in particular, the randomised controlled trial (RCT) has been considered the gold standard or 'best evidence' in health care.[42, 43] However, this type of evidence, predominantly concerned with cause and effect, and the effectiveness of interventions, has limitations in its applications as a research methodology and as a basis for evidence in nursing. Factors that influence the implementation and uptake of evidence into nursing go beyond those concerned only with cause, effect and effectiveness. Other factors are concerned with the human experience: as an individual, within organizations and globally, as well as factors that *influence* the human experience such as social, cultural, economic and political factors.

Therefore, different research paradigms, methods for systematically reviewing evidence and consideration of factors that influence the translation of evidence into practice are called for. These paradigms can include qualitative, economic and opinion research. The Joanna Briggs Institute has developed a validated *qualitative* systematic review process and suite of software programs to 'manage, appraise, analyse and synthesise textual data as part of a systematic review of evidence'.[46] p.52 Put simply, the strength of the JBI approach to systematic reviews is that it has developed methodologies to critically appraise and synthesize qualitative, economic and policy related research, and was therefore the methodology of choice to meet the objectives posed in the systematic review within this thesis.

The systematic review within this thesis required a methodology that could lead to a deeper and richer understanding of nurses' learning experiences within the workplace, particularly the influence that culture within the workplace has on those experiences. This pointed to a method that would both explore the unique and subjective learning experience of the individual nurse and also contextualise that experience within the workplace, capturing those 'abstract and powerful'[24] forces within culture. The method used was one of meta-aggregation. Using the meta-aggregative methodology was important as it enabled the elucidation of social, cultural and other factors that require consideration when translating health care research into practice. In essence the systematic review of critically appraised qualitative literature enables the generation of synthesis statements that can be used as a basis to 'inform (rather than direct) practice'.[46]

In relation to the use of qualitative evidence within nursing and health care practice more generally, it is acknowledged that the complexity in health care is increasing.[11, 47] Decision-making in relation to health care and nursing in particular is often 'in the moment', and requires both astuteness and consideration of a multi-factorial situation. Similarly, the systematic review of qualitative evidence enables an approach that broadens what constitutes evidence[46] and makes available to the nurse and health care practitioner a corresponding increase in the diversity and complexity of evidence, often relevant to those factors that enable the translation of evidence into practice. [46]

In planning the systematic review the JBI methodology requires two reviewers who have undergone the Comprehensive Systematic Review Training (CRT)- in this case the author as primary reviewer was in CRT as was the secondary reviewer - a peer candidate for the Master of Clinical Science. The author also had two supervisors, post doctoral fellows with CRT experience.

Development of an appropriate question using the Population, phenomena of Interest, and Context. (PICo)[16] mnemonic was used as a basis to guide the objectives of the systematic review, and a protocol then developed using the CREMS software. The protocol[48] was reviewed by a supervisory panel and then published through the JBI data base. Following publication of the protocol[48] the systematic review process was implemented, and this is detailed in *Figure one: The process of meta-aggregation.* The process of meta-aggregation was specifically selected as a type of meta-synthesis because it is particularly suited to answering specific questions about health care practice and summarizing a range of views relating to health care issues[43]. Munn notes this is in contrast to 'other recognised approaches to qualitative syntheses, such as meta-ethnography for example, which aim to develop explanatory theories or models'.[43]

Finally, the ultimate purpose of reviewing health care evidence is to transfer that evidence to practice and improve patient outcomes or health care more broadly. Not only has the JBI developed a systematic, transparent, peer reviewed methodology to enable the review of evidence for health care,[46] it has also developed a model for the transfer of evidence to practice. This is a sophisticated process that is inclusive of evidence in its broadest sense and provides consideration of the human and subjective nature of experience to enable a pragmatic process for both the review of research and its application to practice.[45]

Review Method

Objectives

The purpose of this review was to critically appraise and synthesize the best available qualitative evidence to understand the quality, value and type of learning the nurse experiences within the workplace. In particular, the review explored the relationship between workplace culture and the influence this can have on a nurse's learning experience within that clinical workplace or organization.

Inclusion criteria

Types of participants

This review considered studies that included registered and enrolled nurses, regulated by a nursing and midwifery board and/or recognised health practitioner regulation agency (or its international equivalent)[44] working in a Western acute hospital or health care facility. Non- Western facilities were excluded due to a lack of consistency in health practitioner regulation, as well as health care standards, accreditation and other non-organizational cultural factors.

All studies focusing on undergraduate nursing students were not considered for inclusion, however post graduate or post-registration nurses were included. The rationale for this was that post-registration and graduate nurses have a level of competence and skill to enable them to learn and perform to a certain competence level in a range of workplaces. Nursing students have not yet reached this level of performance or competence, and do not have the experience or understanding of the workplace that a registered nurse does; therefore nursing students' perceptions and understanding in relation to learning and the influence of workplace culture may differ from that of registered nurses.

Phenomena of interest

This review considered studies that described two phenomena of interest. The first phenomenon was the *nurse's learning experience,* either within an acute health care workplace, or within a workplace related learning environment (for example, a continuing education department within a health care organization). The second phenomenon was *the influence of workplace culture* on the nurse's learning experience (within the workplace, or workplace related learning environment).

Types of studies

This review considered studies that focused on qualitative evidence and included the following research designs: phenomenological, grounded theory and critical theory.

Context

This review considered studies that include nurses working in an acute health care facility within a Western culture.

Search strategy

The search strategy aimed to find both published and unpublished studies. A three-step search strategy was utilized in this review. Firstly, an initial limited search of CINAHL was undertaken followed by analysis of the text words contained in the title and abstract, and of the index terms used to describe an article. This formed the basis of a preliminary logic grid as shown in detail for the PubMed search, in Appendix IA. Secondly, the logic grid was then adapted and a second search applying a customized logic grid to each database was undertaken across all included databases (see Appendix IB: Search strategy results). A research librarian was consulted in the initial stages of planning, to ensure rigor and appropriateness of search terms applied across databases. Thirdly, hand searching the reference lists within articles selected for appraisal was undertaken at the final searching stage.

English language studies published from 1980-2013 were considered for inclusion in this review. Peter Senge's seminal work, 'The Fifth Discipline'[49] published in 1990, heralded the articulation of the impact *culture* has within organizations. Further, it marked the introduction of the concept of the 'learning organization':

> organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together.[49](p.8)

Thus, the purpose of this time period was to include the literature preceding the introduction of this

concept and integrate it with later literature related to nurses' experiences of learning in the workplace.

The databases searched included:

PubMed

CINAHL

Scopus

ERIC

Embase

The search for unpublished studies included:

ProQuest theses and dissertations

A detailed account of the search strategy utilised for each search engine can be found in Appendix IB.

Method of the review

Papers selected for retrieval were assessed by two independent reviewers for methodological validity prior to inclusion in the review using standardized critical appraisal instruments from the Joanna Briggs Institute Qualitative Assessment and Review Instrument (see Appendix II: JBI QARI appraisal instruments). Any disagreements that arose between the reviewers were to be resolved through discussion, or with a third reviewer, however, this did not eventuate.

The reviewers met prior to conducting critical appraisal to clarify precise definitions of critical appraisal criteria. Criterion 1 was clarified because at first reading a number of the articles appeared unclear on a philosophical position - agreement was required on how to assess this consistently. Likewise, the reviewers came to an agreement on criterion 6 and what it meant for the researcher to state a position both culturally and theoretically within their study. No single criterion was deemed essential, and no minimum number of criteria was deemed essential to form the basis for inclusion. Each article was assessed on its own merits in relation to the criteria, and often it was failure to meet the inclusion criteria rather than the critical appraisal criteria that formed the basis for exclusion.

Data collection

Data was extracted from qualitative research papers included in the review using the standardised data extraction tool from JBI-QARI (Appendix III). The data extracted included specific details about the

phenomena of interest, populations, study methods and outcomes of significance to the review question and specific objectives.

Data synthesis

Qualitative research findings were pooled using JBI-QARI. This involved the aggregation or synthesis of findings to generate a set of statements that represent that aggregation. The first stage was extracting level 1 findings with supporting illustrations from each paper that related specifically to the phenomena of interest to this systematic review. These findings were then rated according to their quality, and categorised on the basis of similarity in meaning. The categories were then subjected to a meta-synthesis in order to produce a single comprehensive set of synthesised findings that can be used as a basis for evidence-based practice.

The findings were then assessed for level of support with the illustration selected from the study; each selected finding was then allocated a level of credibility. The findings were rated against three levels of credibility: Unequivocal, Credible and Unsupported.[16](P.40) Only findings rated as Unequivocal and Credible were utilised in the synthesis.

As this systematic review was undertaken towards a Masters in Clinical Science degree, the stages of data extraction and synthesis were performed independently by the primary reviewer, author of this thesis.

Conclusion

Factors that influence the implementation and uptake of evidence into nursing go beyond those addressed through quantitative research methodologies. The systematic review within this thesis required a methodology that could lead to a fuller understanding of the influence of workplace culture on nurses' learning experiences. Hence, the JBI process of systematically reviewing qualitative research was selected as it enabled the meta-aggregation of qualitative research and the consideration of evidence in its broadest form.[46] Finally, for the purposes of the systematic review within this thesis, not only was the qualitative systematic review process considered the most appropriate methodology, but consideration was also given to the JBI model for ultimately translating that evidence into practice.

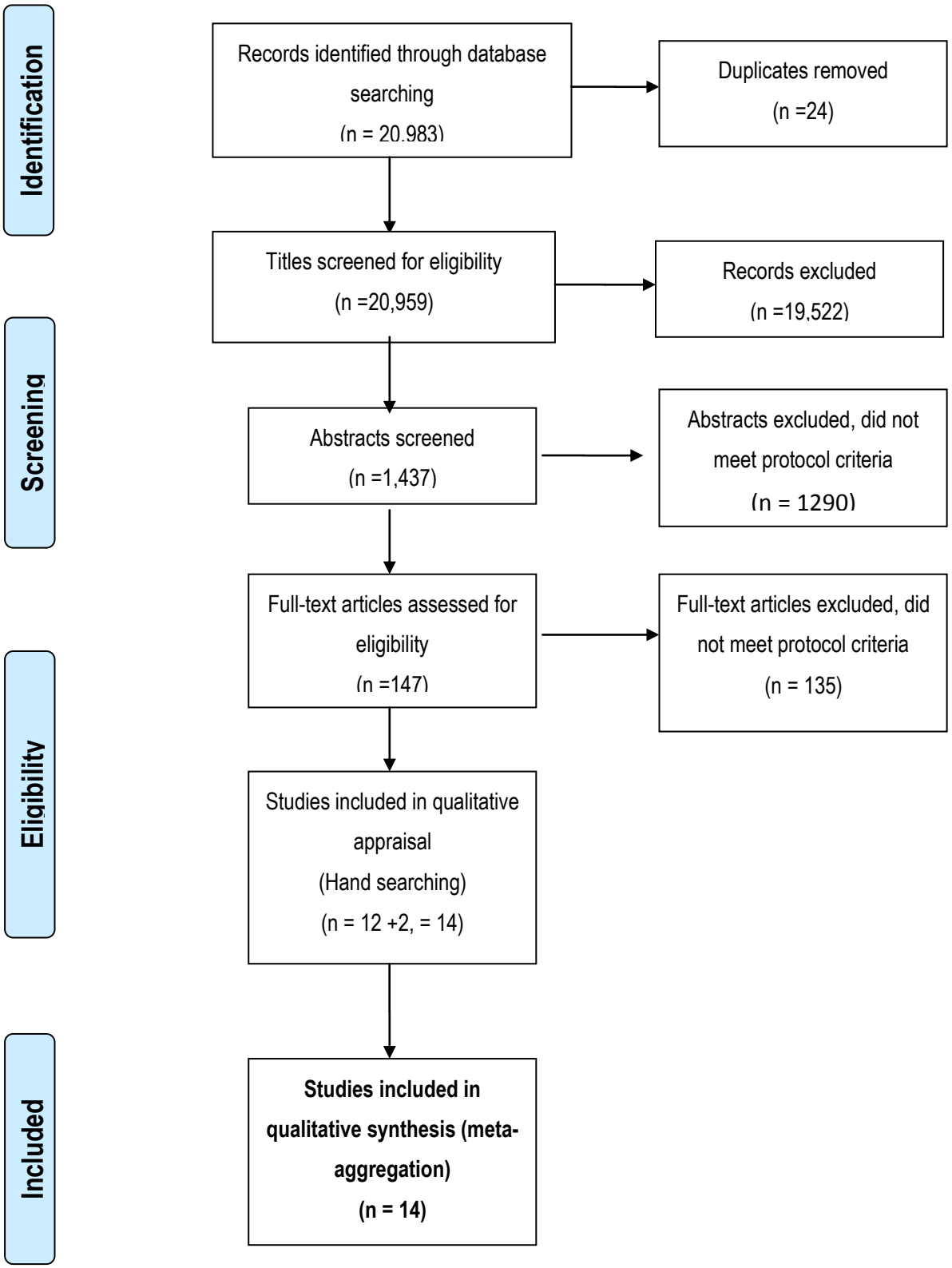
Chapter 4: Results

Introduction

Two synthesised findings were derived from 8 categories and 105 unequivocal and credible findings. Tables are presented that present the final critical appraisal of each paper, included and excluded papers, and the relationship between findings, categories and synthesised findings. An explanation of the meta-aggregative process leading to the synthesised findings and the significance of each synthesized finding, supported by a few key findings are briefly discussed. Findings of the review process will be presented in three sections: Study identification, methodological quality and findings of the review.

Description of studies

Figure 1: PRISMA flow diagram for retrieved studies, excluded and included studies



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As shown in Figure 1 (PRISMA flow diagram, http://www.prisma-statement.org/), 20,983 papers were identified from a detailed search process across a number of selected databases. The large number of papers originally identified may, in part, be attributed to the use of generic search terms such as 'nurses' and 'learning'. Additionally, a large number of papers relating to students' learning and clinical topics were originally retrieved.

Articles were imported from databases into Endnote bibliographic software, and 24 duplicate titles were removed. 20,959 titles were then reviewed and 19,522 papers not relevant to the topic were removed; remaining n = 1,437. Abstracts were then reviewed and 1290 records excluded that did not meet the inclusion criteria. The remaining 147 full text articles were reviewed and 135 excluded that did not meet inclusion criteria; 12 articles were then identified for appraisal - these articles were hand searched and a further two articles, totalling 14 articles were critically appraised. All 14 critically appraised articles were included in the systematic review (see Appendix IV: Included studies and extraction data and Appendix V: Excluded studies).

The studies included in the review were published during the period 1994 - 2013. The participants included within the studies ranged in experience from new or graduate nurses with 8 months working experience, through to advanced practice nurses, nurse managers, enrolled and registered nurses. Studies included both male and female nurses, with an age range of nurses from 26 – 55 years. Experience levels varied from advanced beginner to expert.[50] Overall, the studies were inclusive of participants with a range of years of experience and professional representation.

The stated phenomena of interest within the 14 articles reviewed could be broadly categorized into two phenomena. Firstly, those concerning nurses' learning experiences within the clinical workplace, and secondly, those related to learning experiences not within the clinical workplace, but still linked to the organization. The second category of phenomena related to learning experiences linked to nurses' professional development and nursing roles, but were within a staff development unit or other workplace, higher education supported, or related venue. The phenomena of interest were reasonably homogenous and all were concerned with nurses' perceptions, experiences and factors that impacted on their learning, either within the clinical workplace, or supported (or impeded) by the organization (see Appendix IV: Included studies and extraction data).

The setting for the studies was in acute health care organizations:

- *Five studies were in multiple hospitals/regions[51, 52, 53-55]
- Six studies were in a single hospital or multiple wards within the single hospital[56, 57, 11, 58, 59, 60]
- Two studies were in a single hospital ward[61, 62]
- One study did not report the specific setting[63]

*One of the studies was set both in acute care hospitals within the NHS and private aged care or residential units. Data relating to the acute care facility only was extracted or if comparative data was extracted this is reported within the review.

Six different countries were represented in the review:

- Australia[57, 61]
- Canada[52, 54, 56]
- USA[51, 58, 59]
- Sweden[11]
- UK[53, 55, 60, 63]
- Norway[62]

Methodological quality

Overall, the methodology of papers included was sound (see Table 1: Number of studies included and excluded). In particular, criteria 2, 3, 4 and, 5, (Refer to Appendix II for criteria checklist) all relating to congruity of research methodology and study question, data collection and analysis techniques was strong (see Table 2: Final assessment table). Additionally, criterion 8 that addresses participants' voices, as would be expected in a strong qualitative study, was addressed well in all studies. Criteria 1, 6, 7 and 9, perhaps the more peripheral questions of study quality, did not consistently have this criteria present, or it was unclear.

Results from Critical Appraisal

Table 1: Number of studies included and excluded

Number of studies included	Number of studies excluded
14	0

Table 2: Final Assessment Table (Refer to Appendix II: QARI appraisal instruments, for Questions 1-10 listed in table below)

Citation	*Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
Swallow, V. M., Chalmers, H., Miller J., Piercy, C. & Sen, B., 2001	N	Y	Y	U	Y	N	N	Y	U	Y
McCormack, B. & Slater, P., 2006	U	Y	Y	Y	Y	Y	N	Y	Y	Y
Leonard, D. J., 1994	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
Rossi, Linda R., 1995	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Jantzen, Darlaine, 2004	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Govranos, M. & Newton, J. M., 2013	U	Y	Y	Y	Y	Y	N	Y	Y	Y
Hallin, K. & Danielson, E., 2008	U	Y	Y	Y	Y	N	Y	Y	Y	Y
Hughes, E., 2005	U	Y	Y	Y	Y	N	Y	Y	Y	Y
Aleco, Violet Nour, 2009	Y	Y	Y	U	Y	Y	U	Y	Y	U
Bahn, D., 2007	Y	Y	Y	Y	Y	U	Y	Y	Y	Y
Beal, J. A., Riley, J. M. & Lancaster, D. R., 2008	U	Y	Y	Y	Y	N	Y	Y	Y	Y
Bjørk, I. T., Tøien, M. & Sørensen, A. L., 2013	U	Y	Y	Y	Y	N	N	Y	Y	Y
Chase, Linda Gayle, 1999	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Fox, R., Henderson, A. & Malko-Nyhan, K., 2005	Y	Y	Y	Y	Y	N	Y	Y	Y	Y

*Q1-10 correspond to the individual checklist items on the JBI QARI instrument

Y = yes; N = no; U = unclear

Results of meta-synthesis of qualitative research findings
(The findings associated with each individual study can be found in Appendix VI)

A total of 105 findings (85 unequivocal and 20 credible) were extracted from included studies and grouped into eight categories based on similarity of meaning (see Table 3: Included papers and findings, detailing the number of findings each study contributed to the review.). Subsequently, categories were grouped into two synthesized findings. Table 4 illustrates the relationship between the underpinning findings, contributing categories and final synthesized findings. Although the 'Included papers and number of findings' as well as the 'relationship of the findings to the synthesized statements' are presented below, the findings are discussed in detail later in the paper.

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Table 3: Included papers and number of findings

Citation	Unequivocal	Credible (equivocal)
Aleco V N. Theory becoming alive: The learning experiences of newly graduated nurses [Ph.D.]. Ann Arbor: University of Calgary (Canada); 2009.	27	1
Bahn D. Orientation of nurses towards formal and informal learning: motives and perceptions. Nurse Education Today. 2007 Oct; 27(7):723-30.	3	0
Beal, Judy A Riley, Joan M Lancaster, Diane R. Essential elements of an optimal clinical practice environment. J Nurs Adm. 2008 Nov; 38(11):488 93.	16	1
Bjørk, I. T., Tøien, M., Sørensen, A. L. Exploring informal learning among hospital nurses. Journal of Workplace Learning. 2013; 25(7):426-440.	3	2
Fox, R., Henderson, A., Malko-Nyhan, K. 'They survive despite the organizational culture, not because of it': a longitudinal study of new staff perceptions of what constitutes support during the transition to an acute tertiary facility. International Journal of Nursing Practice.2005; 11(5):193-199.	8	0
Govranos, M., Newton, J.M., Exploring ward nurses' perceptions of continuing education in clinical settings. Nurse Education Today. 2013; http://dx.doi.org/10.1016/j.nedt.2013.07.03	5	3
Hallin, K. and Danielson, E. Registered Nurses' perceptions of their work and professional development. Journal of Advanced Nursing.2008; 61(1):62-70.	2	1
Hughes, E. Nurses' perceptions of continuing professional development. Nursing Standard. 2005; 19(43):41-9.	6	3
Leonard, D. J. Factors perceived to facilitate and impede learning in the workplace. J Nurs Staff Dev. March-April 1994; 10(2):81-6.	3	3
Chase, Linda Gayle. What makes learning meaningful for mid-career nurses? Masters Thesis:[Royal Roads University (Canada)]; 1999.	0	2
Jantzen, Darlaine. Learning stories: A study of positive learning experiences to create positive change. Masters Thesis:[Royal Roads University (Canada)]; 2004.	3	1
Rossi, Linda R. How nurses gain clinical expertise through informal learning in the workplace. Dissertation [Ann Arbor]: Columbia University Teachers College; 1995.	4	2
McCormack B & Slater P. An evaluation of the role of the clinical education facilitator. Journal of Clinical Nursing.2006; 15:135-144.	3	0
Swallow, V. M. Chalmers, H. Miller, J. Piercy, C. Sen, B. Accredited work-based learning (AWBL) for new nursing roles: nurses' experiences of two pilot schemes. Journal of Clinical Nursing.2001; 10:820-821.	2	1
Findings	**85 U**	**20 C**
Total Findings	**105**	

Table 4: Relationship between underpinning findings, categories and synthesized statements

(individual study findings and supporting illustrations are listed in Appendix VI).

Total Findings	Title & Category	Synthesis name & sentence
Findings- mixed Unequivocal (U) and Credible (C) 46U + 12C 58 mixed findings	**Accountability/Critical and Reflective Thinking** Nurses' accountability is a journey; nurses are accountable for their own learning and need to be willing to take on learning opportunities, however, they also need to work in systems that support and encourage their learning and education, as this in turn develops reflective and critical thinking. **Managers/Leadership/Administration** A close link between education and management to enable the provision of resources, education, support and professional development activities, can result in a better working environment and empower nurses. **Resources: Staffing/Budget/Work Schedule/Time** Material resources, time and/or financial support for learning in and out of the workplace need to be provided to support nurses' learning. **Workplace Environment/Culture** The physical environment, work organization and staff interactions support diverse opportunities for nurses to learn in the workplace. However, it is equally important to have support and respect from the organization, demonstrated through time in and out of the workplace for thinking, growing, learning and raising the level of professionalism.	**Organizational influences** Enabling nurses to demonstrate accountability for their own learning, along with clear organizational systems that provide resources, time, adequate staffing and support, demonstrate encouragement and value of nurses learning and education.
Findings- mixed Unequivocal (U) and Credible (C) 39U + 8C 47 mixed findings	**Learning and Education** Integrating working with formal and informal learning strategies, along with access to experts, educators and education support, facilitates learning and professional development. **Mentors and Preceptors** Preceptors and mentors can recognise nurses 'capabilities and support learning in the workplace. **Patients' stories** Retelling what has happened, conveying the centrality of practice is valuable to nurses' learning. **Peers/Colleagues/Seniors/ /Expert nurses** Nurses value and learn from colleagues' clinical experience, knowledge, support, role modelling and enthusiasm.	**Relational Dynamics** Nurses value their peers, expert nurses, preceptors, mentors and educators to facilitate and encourage their learning and professional development.

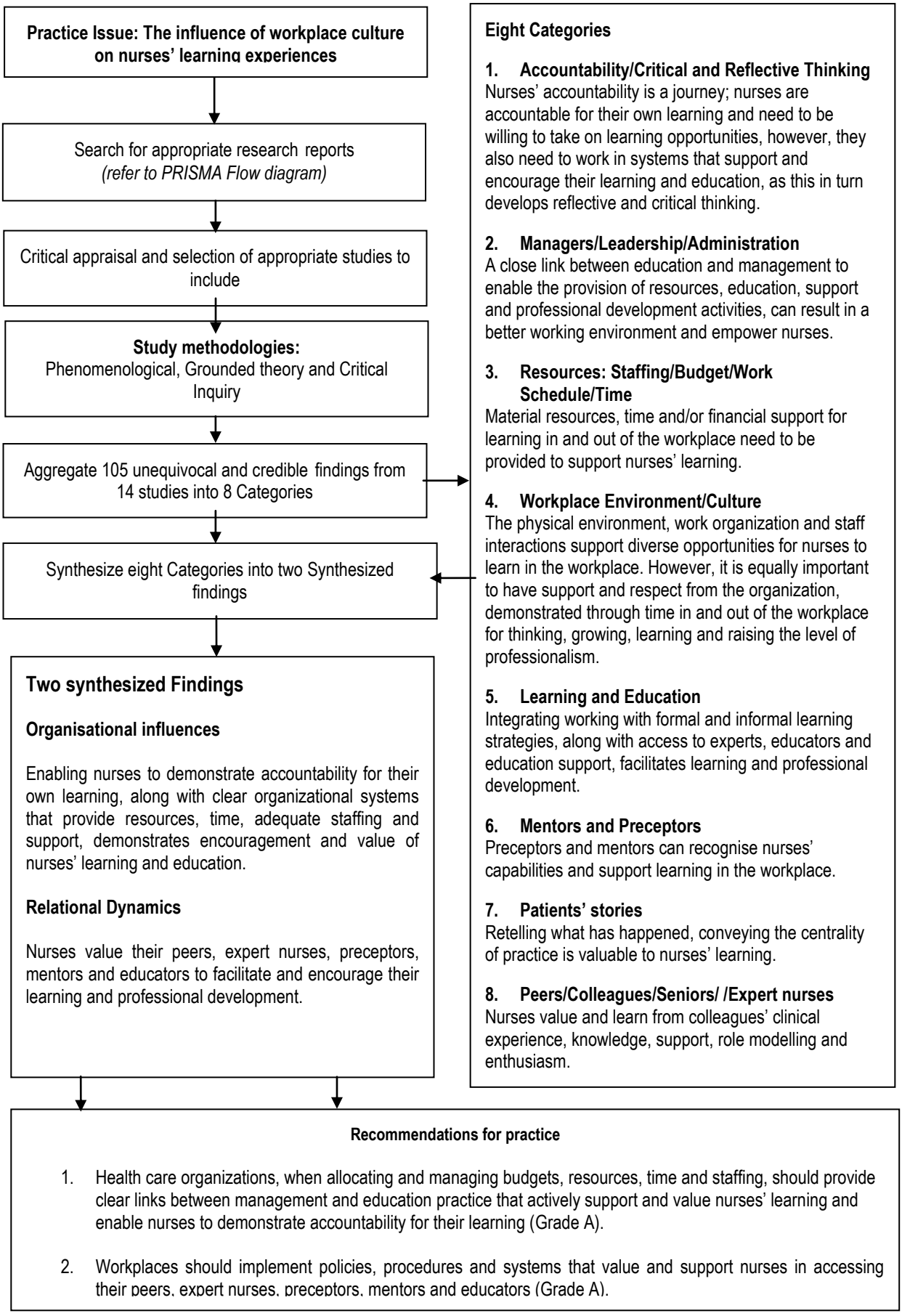
Meta-aggregation

The process of meta-aggregation was used to explore and group findings embedded with nurses' experiences of learning in the workplace or related environment (see Figure 2: The process of meta-aggregation). Real experiences and voices were essential to provide the necessary evidence required to 'inform decision making' and guide practice.[43] Embedded in the findings was the notion that the nurse's learning experience was essential to professional and practice development and that the workplace was important to facilitate (or hinder) this.[51, 59,52, 58, 62, 54 & 56] Chase succinctly expressed support for this when she noted that professionalism and learning were integrated in such a way that one could not be a professional without making learning part of the work role.[56]

Through the process of meta-aggregation it was also noted that nurses learn through 'doing'[52 & 54] and their learning experience is often one of praxis.[59] It is not surprising then that meta-aggregation, a valuable process for synthesizing qualitative research findings, also has its genesis in praxis. Munn et al[43] note the following:

> The meta-aggregative method has been explicitly aligned with the philosophy of pragmatism in order to deliver readily usable synthesized findings to inform decision making at the clinical or policy level [10]. As a result, the meta-aggregative approach to qualitative synthesis is particularly suited for reviewers attempting to answer a specific question about healthcare practice or summarizing a range of views regarding interventions or health issues…[43] (p.2)

Figure 2: The process of meta-aggregation



Synthesized finding one: Organizational Factors

Enabling nurses to demonstrate accountability for their own learning, along with clear organizational systems that provide resources, time, adequate staffing and support, demonstrates encouragement and value of nurses learning and education.

The first synthesized finding relates to the organizational factors that contribute to a workplace culture and thus influence nurses' learning experiences. Four categories generated by 58 findings contributed to this synthesized finding. Categories will be presented with a few key findings and their supporting illustrations below. All extracted findings can be found in Appendix VI: List of study findings and illustrations.

Category one: Accountability/Critical and Reflective Thinking: Nurses' accountability is a journey; nurses are accountable for their own learning and need to be willing to take on learning opportunities. However, they also need to work in systems that support and encourage their learning and education, as this in turn develops critical and reflective thinking.

It was apparent in this category that nurses accept responsibility not only for their clinical practice, but also for their learning and the importance and relevance of this to their patients and their practice development. Nurses valued and clearly identified the importance of both mandatory and non-mandatory learning but required the 'streamlined' support of the organization to enable this learning and deliver best practice to their patients.

Learning needs to be personally useful and applicable:

"One nurse stated that she personally 'reflects' on action however several of the nurses pointed out that learning and retention were aided by partnering with others, by being mentored, and by 'doing' either by themselves or with others in a group setting".[56](p25)

It is a 2-Way Street...even when the environment is supportive of nurses; they need to be willing to be supported:

"The issue is not support... Support is here. It is a willingness to use the support to do something that you think will be useful."[51](p491)

In this study, the participants often referred to using these guidelines as "looking up," "sticking," or "abiding by" the policies and procedure manual in their practice. Diana said:

"I stick to the policies and procedures ... I look up procedures and policies and diagnosis on line;" Lillian said: "we know where to find the answers from computers, policy manual, from textbooks;" Bob said: "we were flipping through the manual...okay the manual is right here we can just read from it when we

need to..."[52]*(p.128)*

Learning from the experience of mistakes.[54]*(p96)*

"I probably did make mistakes. I get it, you know I get that I didn't do it right. As long as they aren't harmful, making mistakes." ..."You don't learn from the times when things go normally, but I learned from the times when things go bad."[54]*(p.101)*

...showing that she could handle things and do them by herself. The following narrative expresses her perspective:

".. .usually those were like bad experiences of feeling overwhelmed of having too much going on with my patients. Trying to manage all by myself because you want (sigh), you know, it's this thing in nursing where you want to show that you can handle a lot of things as a new grad and you know sometimes (sigh) you wouldn't want to ask for help, and you want to be able to do it yourself so that you knew you could do it so that, that's frustrating." [52]*(p.120)*

Category two: Managers/Leadership/Administration: A close link between education and management to enable the provision of resources, education, support and professional development activities, can result in a better working environment and empower nurses.

The findings underpinning this category were at times emotive and expressed the strength of feeling participants had regarding the impact on their learning by managers, administrators and leaders as 'resource controllers'. This category was consistent with the aforementioned accountability category, as it did not disregard the nurses' role in pursuing their own learning experiences, as evident in the first example.

The learning experience. Taking part on formal study activities appeared to be problematic and it seemed to stem from a lack of regular educational appraisals.

"We are supposed to have one (regular appraisal) annually... I have been here for five years... We should have them (regular appraisals) but it is virtually impossible at the moment..." [63]*(p728)*

For others the experience was different

"We usually see the manager yearly... if you have an interest in certain courses you are encouraged to do them. Study time is decided between you and your manager during your personal appraisal...but it would have to come from me wanting to do it".[63]*(p728)*

...frustration with their belief that they were not adequately supported for their level of practice expertise:

''I don't think nurses get that kind of administrative support when they are at an advanced practice level."[51]*(p. 490)*

Seamless Support at Every Level...they overwhelmingly felt that a nurse manager who ''makes things happen'' and supports nurses at all levels of professional growth is critical:

"I have had good nurse managers, but M brings out the best in people. She enables me to think beyond what I think of myself."[51](p.490)

Support for the development of scholars and scholarly nursing practice is also needed from the nurse executive team:

"When you have the top ones focusing on better development in nursing practice, that's the trickledown effect. If you don't have it from the top, then the ones down below aren't going to get that sense of accomplishment."[51](p.491)

Inhibiting factors around CNE in the workplace...

"Needs to be a closer link between management and education...as change will not be possible if they are not linked....education fails to capture the workplace context...I think that education works on the premise that it can stop and educate but the workplace, particularly a busy acute setting, doesn't stop...a lot of education could happen in the workplace as its happening".[61](p.5)

...a lack of support in implementing change as well as how managers' leadership styles played a part in the 'no-change' culture of nursing:

"If I had my manager's support I'd feel much empowered, I'd feel a lot more positive and enthusiastic. I'd feel a lot happier in general...the management on the unit where I work are very negative towards nursing staff so I've had years of lack of support, lack of progression".[53](p.47)

First- line managers:

"...the head nurses could be the greatest facilitators of education because they need to support it and allow them time... the greatest hindrance is the same thing, the lack of it".[58](p.85)

They spoke of the tangible value of an environment that supports learning from mistakes, that is, the opportunity to change patterns of practice that improve patient care and provide greater satisfaction to the nurse in the delivery of care:

"I had this plan. Okay this didn't work out so well, but maybe it didn't work out well at [this] particular time I [know] I'm responsible for how it turns out. But this great plan doesn't work out the right way." She continued her dialogue, describing a process of reaching out to her nurse manager to address the problem. "You knock on her door, [she says] oh come on in, have a seat and I say look this didn't quite work out. What did I do wrong?".[51] (p.491)

Category three: Resources: Staffing/Budget/Work Schedule/Time: Material resources, time and/or financial support for learning in and out of the workplace need to be provided to support nurses' learning.

This category was closely related to the above; however, it clearly focused more on the resource management role of the manager rather than the 'resource control' and relational or broadly inter-personal dynamics of the role. Resource management not only clearly influences nurses' learning experiences, it permeates their entire working experience, the lack of time, resources and 'busyness'

can lead to a sense of disillusionment and powerlessness and this is consistently reflected in the tone of the participants' voices. The opposite is also true, incidence of effective resource allocation facilitated nurses' learning experiences. In congruence with the previous theme these experiences were consistent from new graduates through to experienced and expert nurses.

Even Scholars Need Support...Resources such as time, flexibility, administrative support, and encouragement to continue to grow as an experienced clinical scholar were consistently mentioned as lacking yet critical to scholarly nursing practice**:**

''I need help from the institution... time and expertise. I want to publish but I don't know how".[51](p.490)

Participants ...expressed feelings of dissatisfaction with their employing organization's lack of support to continue their post-registration education:

"I found it quite hard because the trust did not help in any way, either financially or by allowing time for study days. I had to do it all in my own time and so did others". [63](p728)

Attitudes to learning. Staff shortages and time constraint factors were reported as affecting interviewees' ability to attend study sessions, both mandatory and non-mandatory:

"It is all down to being able to spare the staff...if you need to do a day's work...the work comes first".[63](p.728)

...an inherent gap between the expectation and the reality of how a workplace values scholarly nursing practice surfaced:

''On paper, [the administration] says, yes, we value you. But will that garner me any more resources? Probably no".[51](p490)

Of all the resources cited as essential, time was the predominant theme:

''I am free to do it [solving a challenging clinical problem] on my own time. I'm just not supported".[51] (p.490)

The need for adequate staffing levels of appropriate skill mix in the wards:

"We need more time off-line as there is simply not enough time on a shift to do anything like look up and learn about your patients. You have to do it when you go home."...However, a positive response towards attempting to address poor staffing levels included: "Even though I have heard of staffing problems elsewhere, my ward bent over backwards to make my transition easy. They made sure that I always had less patients at the beginning and, if they were of a higher dependency, I had a smaller load". [57] (p196)

Learning new ideas can ultimately lead to apathy and disillusionment because of the climate of the working environment. Reasons why nurses cannot effect change were illustrated:

"I think they're [nurses] too busy. There's no time...too many demands...they haven't got the time to go and start a new idea with all the paperwork...There's not enough staff [or] time to do the basics, let alone try out new ideas...sometimes there's resistance from other members of the multidisciplinary team...it fosters apathy and negativity and that's perpetuating".[53](p.47)

...increased workload and low staffing ratios:

"I just find the severity of the patients' sickness is getting worse so much and that makes the job heavier like people are not healthy, obesity is on the rise which puts more physical work on us... I find frustrating too is people's expectations when they come to the hospital...some families or patients who expect to get one-on-one every minute of care ... I am sorry I don't have time to even do basic ADLs... you didn't get a four year degree to run for the rest of your life, you leave work exhausted physically and mentally exhausted who would want to do that for twenty years".[52](p.132-133)

Category four: Workplace Environment/Culture: The physical environment, work organization and staff interactions support a positive work environment and enable diverse opportunities for nurses to learn in the workplace. Equally, it is important to have support and respect from the organization, demonstrated through time in and out of the workplace for thinking, growing, learning and raising the level of professionalism.

Participants addressed the importance of working in a milieu that sets dual expectations for high standards of patient care along with high expectations for professional development... One nurse noted that the milieu of the workplace needs to shift to become a place where:

"there's room for thinking about problems in a different way, coming to different solutions that may have better outcomes".[51](p489-490)

The duality of expectations for high patient care standards and professional development results in an environment that fosters enthusiasm and optimism and has the important outcome of:

"raising the level of professionalism and refreshing [nurses'] pride" ... "It is a good place to work because they [the hospital] foster independent thinking and collaborative practice".[51] (p.490)

an inherent problem in nursing is how you can foster professional growth and take care of patients at the same time:

"You have to have an environment that allows nurses not to be at the bedside all the time, but [provides time] to be growing and learning...There are ways for the structure and management to allow that [to happen]".[51] (p.490)

Openly Valuing Scholarly Nursing Practice:

"The culture of the hospital respects nursing. So therefore, when you feel that [respect], you give your best and the patient gets the best".[51] (p.490)

Handover in the morning and afternoon... the handover was a setting for multiple learning possibilities as well as an occasion for dispute:

"It's the important things we air and discuss, but I know some think that this should be discussed some other time. I think I can see a pattern – the nurses who work quickly themselves want the report to be short and to the point, and most of the students and inexperienced nurses want to discuss just like I and

many of the other seasoned nurses".[62](p.432)

Distribution of work around the whiteboard...After handover, two or three of the nurses would start to match the nurses on duty to the different patients... Inherent in such discussions was the judgment of patient complexity versus nurse competence (or incompetence), who needed to learn what and from whom, and how much was a reasonable amount of work for each nurse:

"I have never thought about those situations as a setting for learning, just as a way of organizing our work".[62](p.433)

...learning in clinical settings was positively influenced by a supportive learning environment. Support and respect from peers, senior nursing staff, members of the multidisciplinary team, and nursing management were thought as important for their growth:

..."the unit is fairly supportive ... I learnt to prioritize (organize her work) from other senior nurses, from colleagues;" "I have support around me, full support." This person described full support as *"be able to be working independently but still have someone to bounce your ideas off and kind of be watching".[52] (p.117)*

On the other hand lack of support in the workplace had a negative impact on their learning:

As Janet said: "I found myself on a unit that was full of turnover...and support wasn't there and everybody hated their job".[52] (p118)

Synthesized finding two: Relational Dynamics

Nurses value their peers, expert nurses, preceptors, mentors and educators to facilitate and encourage their learning and professional development.

The second synthesized finding relates to the relationships and relational dynamics that contribute to a workplace culture and thus influence nurses' learning experiences; there were a total of four categories generated from 47 findings. Categories will be presented with a few key findings and their supporting illustrations below. All extracted findings can be found in Appendix IV: List of study findings and illustrations.

Category five: Learning/Education: Integrating working with formal and informal learning strategies, along with access to experts, educators and education support, facilitates learning and professional development.

Within an acute care organization nurses learnt equally in and out of the workplace, and both experiences were valuable and supported by access to experts, educators and formal and informal learning strategies. Interestingly it would seem that novices or less experienced nurses placed greater

value on learning in the clinical workplace; their classroom experience had positioned them with an immediate need to apply their knowledge to practice and to continue their learning through practice development. More experienced nurses, although they did not underestimate the value of clinical workplace learning, were more able to independently contextualize their learning. Experienced nurses valued the expert nurses and educators outside the workplace (i.e. in the classroom setting) but still valued the patients' place in their learning and the ability of the educator or expert to present their learning through patient scenarios or case studies.[58]

Education availability...In conjunction with support for nursing education by administration is education availability... Education availability was noted in the number and variety of programs offered to staff on all three shifts. The hospital has a career progression program:

"to recognize excellence in all areas of nursing practice and to promote the advancement of professional nursing". [58](p.83)

The impact on professional development was important. Indeed, the practice-focused nature of the facilitated learning enabled nurses to recognize and value their own ability to lead change:

"...something I wouldn't have done without Accredited work-based learning (AWBL) I wouldn't have had the confidence to do it".[55] (p.821)

Learning under Supervision ... learning during this period is described as inadequate and unsatisfactory. This is expressed in the following narratives:

"the clinical educators are very important it's good to know that there is someone there that if you have a question and nobody else can help you or everybody is busy that you know you can go to... since I've been here it's hard I haven't really seen the clinical educator a whole lot so it's hard to get certified at things if you have to seek them first".[52](p.113)

...they learn better through doing, performing, and hands-on activities rather than watching someone else demonstrating the-how-to. Comments from participants were:

"I learn by doing so I think it's important for me to be doing things ... rather than watching people do them".[52](p.118)

Learning in clinical settings was appreciated... because they found out that there are learning opportunities, practically, everyday:

"I learn by actually doing it, someone showed me how to do it the first time I'll remember it but I actually have to be able to do it continuously I need to be shown how to do it then I am okay".[52](p.122)

commitment to the profession... becoming informed practitioners, and recognizing the need for life-long learning:

"... I am still learning everyday but I am not learning tasks any more ... so what I am learning now is um all those other things outside of the task like discharge planning, you know, what to tell patients to expect, I am focusing more on my interactions with patients and how to interact with them and I am learning also about what's in the community for long term care or assisted living I am learning all those

other things ... I am relating more to theory like I have more time for communication with my patients now, and I try to remember all those you know therapeutic communication listening skills ".[52](p.131)

Category six: Mentors/preceptors: Mentors and preceptors can recognize nurses' capabilities and support learning in the workplace.

Mentors and preceptors were a valuable facilitator of nurses' learning experiences, particularly within the workplace. Nurses never seemed to 'outgrow' the need for this expert guidance or peer coaching, and they expressed their experiences as positive throughout their career.[51]

The participants strongly believed that mentors continue to be essential at all levels of career development, even for those at the pinnacle of their careers:

"You need mentors who can see what you bring to the table that you may not necessarily see in yourself. I know what is required to be a scholar and I love it. I am thankful to those around here who expect the best from all of us".[51](p. 490)

Allocation of a preceptor on a one-to-one basis:

"It is great when you are able to work with your preceptor because you have always got someone to bounce queries against. It also means that you can discuss conflicting information. I had too many experiences where I stuck to the procedure manual as we were told, but some staff do exactly the opposite and tell you to ignore the manual. My preceptor was able to explain the differences and appropriate ways of modifying the manual". [57](p.197)

Buddy shifts and supervised learning in clinical settings is very essential during the initial period of their work especially if the new graduates haven't had previous work experience in clinical settings:

".. .because I haven't had experience in healthcare before so I was completely green behind the ears when it comes to just being in hospital .. .it's been a year and not just myself but there are other girls ... I haven't touched heparin and had no idea I didn't prime a line you know what I mean like I just didn't know. I didn't know it's very stressful and I think that it's very important that a buddy system or having a good clinical educator on the floor".[52](p.128)

Category seven: Patients/stories: retelling what has happened, conveying the centrality of practice is valuable to nurses' learning.

Nurses' were clear that patients and their stories had a central role in both their teaching and learning experiences. Moreover, these stories were used to exemplify nurses' clinical decision making and reflection in action. That is, the patient stories were integrated into the teaching/learning experience and were used as tools to facilitate learning 'reflection' and 'decision making'.

Working together with the patients:

"I think they need me. I have expertise and one of my important contributions is to take the young ones with me and teach them. I like the difficult cases where there is a lot to do. I use them explicitly to show how I reflect and decide on actions".[62](p. 434)

Learning from stories...Jill and Ann both describe how they have used stories to learn from and to teach others. When giving an orientation, rather than listing complications, Jill said:

"You give concrete examples...those case scenarios always seem to hit home for nurses...even if it is just in a conversation. 'This is what happened here.' I think there are a lot of valuable things that we learn from what's happened".[54](p.104)

Category eight: Peers/colleagues/seniors/expert nurses: Nurses value and learn from colleagues' clinical experience, knowledge, support, role modelling and enthusiasm.

The value and power of words cannot be underestimated and contributed to a positive workplace environment. Experts, peers and others' experience were all valuable and relevant to nurses' learning experiences; conversely if these were absent, they were also seen as inhibitors to learning. If a resourceful person could not be contacted when needed – this was considered not only a barrier to learning, but also to safe patient care, and left the nurse disempowered and anxious.

Support from peers was also considered essential. Enthusiasm and encouragement were noted to be important:

"Working with positive people who are upbeat and not with somebody who is going to be negative or lazy. If they are not enthusiastic then you feel that you can't get enthused around them because they will think that you are crazy".[51] (p.491)

...frustration with the lack of motivation in some of their colleagues, which some nurses viewed as generational differences:

"Some are not interested in advancing. Some not interested in learning new things". [51] (p.491)
The importance of a positive attitude of clinical staff and nursing management:

"Our area has a good social network [among the staff] and this has made it a good environment to work in—better than where some others are working. I have been fortunate".[57](p.195)

Participants saw senior staff as a valuable and accessible resource:

"in a good way everybody has a role in education".[61](p. 4)

Many nurses were being drawn into a cycle of frustration when learning new things:

"I feel quite excited about bringing it [new ideas] to the workplace... that can quickly turn to frustration when it is not met with the same enthusiasm by your work colleagues".[53](p.46)

Learning from the experience of others...Nurses learn from working alongside more experienced or "differently experienced" colleagues:
(Jill's workplace)

"Well, it has a lot of people that work there who have many years of experience to be learning from. The nurses have been in [that specialty area] for a long time....that makes it a learning environment".[54](p.102)

Learning the job through role modelling from peers:

"I looked up to her because she was so knowledgeable and I respected and admired the way she took care of people...she was a great role model".[59](p.150)

Conclusion

Following appraisal of methodological quality, fourteen studies were identified that considered nurses' learning experiences and the influence of workplace culture on these. Among the identified studies, six different countries were represented and two synthesised findings were derived from eight categories and 105 findings, representing a diversity of nursing voices.

Importantly, the forces within workplace culture that influence nurses' learning can be perceived as either supportive or as hindering to the nurses' learning experience. Factors such as resources and relationships can permeate an entire working experience, not just the learning. The learning that takes place is also relevant to the implementation of evidence based practice and the achievement of safe patient outcomes. [5, 6, 19-23]

Chapter 5: Discussion

The objective of this thesis and the underpinning systematic review was to synthesize the best available evidence on the influence of workplace culture on nurses' learning experiences. The quality, value and type of learning the nurse experienced within the workplace environment was not explicit, rather it was embedded in the facilitators and barriers of learning that relate to the workplace culture. The discussion in this section includes the following:

- Organizational influences
- Relational Dynamics
- Organizational culture, nurses' learning and the nursing workforce shortage
- Organizational culture, nurses' learning and patient safety
- Translation of evidence into practice.

Factors within the workplace or organizational culture that influenced nurses' learning included: leadership, managers and management systems and practices, access to, accountability and support for education and professional development, and access to and support from mentors, preceptors, peers, colleagues and expert nurses. Importantly, these factors were consistently presented as either facilitators or barriers to nurses' learning experiences. Therefore, factors occurring within the workplace or organizational culture were static and consistent, but their power to influence nurses' learning was either a facilitator or a barrier. This was applicable both within the clinical workplace, and more broadly throughout the organization.

For the purposes of this review, workplace culture referred to the collective structures, systems and resultant behaviors evident in a work environment.[26] The influence of workplace culture extended beyond the clinical workplace, recognizing that the complexities within an organization and the resultant climate, also impact on nurses' learning experiences.

Consequently, nurses learning experiences were explored that related not only to the local workplace environment but were inclusive of learning experiences more generally within the organization such as staff development and continuing education departments, or work-related professional learning experiences. The defining factor being that the learning experience was related to professional and workplace development; in or out of the clinical environment.

A healthy workplace culture was one that embraced scholarly nursing practice and balanced care giving

with professional development.[51] Scholarly nursing practice refers to nursing practice in which the nurse is learning as part of the practice process. In reference to this Beal calls for "new clinical practice models that incorporate key environmental factors and address inherent tensions between time devoted to patient care delivery and advancing professional development".[51] Building on this, it seems evident that patient care delivery and professional development are both valuable parts of nursing practice and both are influenced by the context of workplace culture. However, this raises the question of the role of professional development and clinical learning and whether these are separate processes from nursing practice. Indeed, it is proposed that they are not separate, but different, complex, yet all necessary and integrated components of professional nursing practice.

Although Beal's[51] findings are difficult to generalize as they refer to a highly educated group of nurses, Fox[57] noted that learning in the workplace was also crucial for the new nurse, or nurse 'in transition' to a workplace. Fox initially defined 'in transition' as a 'period of time when a new staff member undergoes a process of learning and adjustment in order to acquire the skills, knowledge and values required to become an effective member of the health care team'.[57] Fox then built a picture of the nurse in transition as a learner & therefore scholarly and requiring a practice environment that balanced care giving with professional development. Further, Fox also noted that culture can influence the transition and therefore learning experience of the new nurse.[57]

Workplace culture can influence learning - both informal (in the workplace) & formal (outside the workplace). Bjork[62] identified that the leader is crucial in determining a culture that will support nurses' learning. Bjork also noted that the physical layout of the ward, how nurses navigate & use this & how the leader role models within it can all support or hinder nurses' learning.[62] Therefore it can be seen that the physical structure also contributes to workplace culture. Bjork reinforced the notion that the leader's role is to develop a culture of mutual support and learning as well as to provide the structural support for knowledge sharing.[62]

Organizational influences

Enabling nurses to demonstrate accountability for their own learning, along with clear organizational systems that provide resources, time, adequate staffing and support, demonstrates encouragement and value of nurse' learning and education. (synthesized finding 1).

The categories that were synthesized to develop the first synthesized statement point to the organizational influences within a workplace that facilitate or inhibit nurses' learning experiences, either directly within the clinical environment or tangentially through their access to work or professionally related learning experiences. These categories – now referred to as factors, included: nurses' accountability and capability to think and act critically and reflectively, the leadership administration and management who control distribution of the organizational resources, the allocation of and actual organizational resources, that is: budget, work schedule and time available, and lastly the workplace culture or environment itself - both physical, organizational, and as a series of personal relationships or interactions.

Nurses, as registered practitioners are accountable both morally and legally to their patients and the community; they have a 'duty of care' embedded and accepted in their very practice.[2] However, nurses practice within a workplace, and in relation to learning, the workplace culture needs to support their accountability; nurses do not by their very nature practice in isolation, nor can they isolate practice from learning. Through this review it is asserted that the notion of 'accountability' is recognized internationally[3, 4] in the literature as a concept embedded in nursing practice, but moreover, as relevant to learning. Furthermore, the Australian national competency standards for the registered nurse[2] include the notion of accountability in all domains of nursing practice, although most explicitly in the 'professional practice' and 'critical thinking and analysis' domains of practice.

Therefore, a dual system is called for that enables nurses to demonstrate accountability for their own learning through workplace and organizational enablers. Burke notes "One understudied work environment variable is accountability, defined as the degree to which the organization, culture, and/or management expects learners to use trained knowledge and skills on the job and holds them responsible for doing so…".[64] (p282) Clearly Burke frames accountability within the work culture context and identifies the necessity for this in enabling 'worker' accountability; however, 'worker accountability' is contingent upon organization culture, management and training.[64]

A key facilitator or barrier to nurses' learning was the support provided by way of resource control and administration; this related to the links between key leadership, management and education roles. If a lack of support was experienced this became tangible within the organization, it permeated through to create a 'no-change' culture.[53] This was a dangerous culture, as even if nurses did learn, learning could not be transferred to or embedded within the organization; nurses could not apply their learning in the form of practice change or development. This is supported by Burke who noted in considerable detail the work environment influences that were required to enable the support and transfer of learning into the workplace.[64] Hughes further supports this by noting that nurses would be vulnerable to follow a destructive path of disillusionment, if their learning was not supported.[53]

The findings underpinning the two categories *Management, leadership, administration and Resources: staffing/budget/work schedule/time* were at times emotive and expressed the strength of feeling participants had regarding the impact on their learning by managers, administrators and leaders as 'resource allocators'. It was at this organizational level that nurses felt they were particularly facilitated or inhibited with their learning experiences. Significantly, it was not just learning in the clinical environment that was impacted, but also performance appraisal, and professional development opportunities away from the clinical environment. It is also of note that these experiences were consistent from new graduates through to experienced and expert nurses.[51, 52, 56, 62]

Overall, the literature was imbibed with an experience at all levels of nurses experiencing a lack of support from management and leadership. However, the converse cannot be underestimated as Beal reports in relation to learning and practice "A nurse manager who respects, values and supports the work of clinical nurses decreases stress and positively affects satisfaction and retention".[51] (p.488)

The Registered Nurses' Association of Ontario, *Healthy work environments, best practice guidelines*[3] note that "Healthy work environments for nurses are defined as practice settings that maximize the health and well-being of the nurse, quality patient/client outcomes, organizational performance and societal outcomes".[3] (p.14) The workplace is further noted to be an important learning environment – Billet notes:

> The way workplaces afford opportunities for learning and how individuals elect to engage in activities and with the support and guidance provided by the workplace, is central to understanding workplaces as learning environments.[7] (p.209)

Billet notes Lave's assertion that "There is no separation between participation in work and learning".[7]

(p.210) If there can be no separation in learning this presents the notion that learning can be either facilitated or hindered by work, but cannot be separated from it, and the suggestion of a workplace environment that supports learning is critical.

Beal presented the idea that professional growth at work is 'an inherent problem'[51] and questioned how you can consciously construct a healthy culture with the right leadership, skill mix and professional development support, whilst maintaining the level of work performance required in acute environments.[51] Aleco[52] noted that learning in the clinical setting was positively influenced by a supportive learning environment, and Bjork[62] went on to enumerate the physical opportunities for learning in the ward environment, while Leonard[58] identified the value of workplace related learning such as that, that takes place in a staff development or continuing education department.

It cannot be overstated that the value of nurses learning is not only in the individual experience, but also in the application of that learning to the practice situation. Those situations and consequences in organizations that either inhibit or facilitate the application of what has been learned in training back on the job—referred to in the literature as 'transfer climate'[65] have been shown to influence transfer outcomes directly. In the context of acute health care organizations, transfer outcomes could be considered to influence nursing practice outcomes.[64]

Relational Dynamics

Nurses value their peers, expert nurses, preceptors, mentors and educators to facilitate and encourage their learning and professional development. (synthesized finding 2).

The categories that were integrated to develop the second synthesized statement related to the interpersonal relationships and factors that facilitate or inhibit nurses' learning experiences, either directly within the clinical workplace or tangentially through their access to work or professionally related learning experiences. These factors included: access to and interaction with educators, peers, colleagues, expert nurses, preceptors, mentors and patients, as a series of personal relationships or interactions.

When provided with learning experiences and supported by staff within the workplace, learning was a positive experience of growth and change.[52] Learning in the clinical setting was valued and appreciated, nurses stated that they could find and value learning opportunities practically every day.[52]

However, if leadership, management or peer support were not provided, these opportunities risked being overlooked. Similarly, clinical educators were valued for the support they provided to nurses' learning experiences. However, this could rapidly deteriorate to frustration if staff could not 'access' educators and have their skills certified.[52]

The impact of significant staff on nurses' learning was such that it enabled them to recognize and value their own ability to lead change.[52] This was quite a different outcome from Hughes narration of disillusionment when learning was unable to be transferred to practice.[53]

Acquiring professional nursing competence is a life-long experience and continuing education opportunities are important components in the nurses' ability to perform a satisfactory job. Hence, a great deal depends on demands and opportunities available in the workplace.[11] Additionally, the ability to think critically and reflectively are skills that are acquired through a learning process and once again are embedded in the Australian national competency standards for the registered nurse[2] and therefore required in nurses' 'every day' practice. Govranos notes that "Nurses are required to be flexible, critical thinkers, striving to deliver safe and effective patient care".[61] (p1.) Therefore, fostering life-long learning and educational opportunities within practice is important. Facilitating this learning requires gaining nurses' acceptance and integration of education into their everyday practice and the ward team.[61]

To contextualize the importance of workplace learning, its relationship to practice development and its relevance to the increasing complexity of care required, Bahn asserts "In practical terms, if practicing nurses stopped learning they would not be able to keep up with changes: they would not be able to adapt to new demands from the public they serve and the world in which to live and work would become an alien, disturbing environment". [63] (p.724)

Enthusiasm and encouragement from peers was noted to be important. The value and power of words cannot be overemphasized in contributing to nurses' learning experiences and a positive workplace culture.[51,57] Nurses' learning experiences were enabled by supportive relationships both within the workplace and the organization. Through interacting with and observing peers and more experienced nurses the significance of both the value of the learning and its application to practice were highly regarded. Burke supports this by noting that "Perhaps the most consistent factor explaining the relationship between the work environment and transfer is the support trainees receive to use their new skills and knowledge".[64] Burke goes on to state that research on the role of supervisors and peers was separate from 'transfer climate' because each 'variable was found to contribute a unique influence on

training transfer across several studies'.[64]

Nursing peers and experts alike were valuable in supporting nurses' learning and the converse was also true. If a resourceful person was not available when required it was a barrier to learning and left the nurse feeling disempowered and anxious.[52, 54, 59, 61] The value of peer support within the workplace becomes critical when Billett's assertion is noted:

> individuals who are only able to access routine work activities and/or are denied support when faced with unfamiliar tasks will likely have more limited learning outcomes than those able to participate in new activities supported closely by experienced co-workers.[28] (p.462)

The patients were a central part in nurses' learning.[54, 59, 62] The experienced nurses would consciously organize the less experienced nurses, take them to the bedside, review a patient's story and support the nurses in learning from this.[62] They listened to the patients' stories, made their assessment and provided care. In fact one nurse stated that it was difficult to progress unless you had provided the patient with the opportunity to tell their story.[59] It seemed that there was a therapeutic aspect to the patient telling their story. It is suggested that the telling of the story was no ordinary process of recall; perhaps the healing was partly contingent on the telling? As Hawkins and Lindsay observe regarding patients' stories: "They provide us with new and important information, and encourage holism and a move to a more therapeutic approach to care". [66](p.S14)

Organizational culture, nurses' learning and the nursing workforce shortage

Warnings of a global nursing workforce shortage are well supported in the literature[67-71] and Lartey notes that the nursing shortage is a major issue because of its effect on both the cost and quality of health care. In order to address this shortage it is clear that organizational factors such as learning and culture[72] can significantly contribute to decreasing local nursing workforce shortages through the implementation of nursing retention strategies[71-75]. Lartey highlights the relevance of employing retention strategies as a means to addressing nursing shortages and notes the organizational benefits in doing so:

> The task of increasing the retention of RNs, both in the workplace and in the profession, has been argued as necessary to address the nursing shortage. Furthermore, decreasing nurse turnover could also decrease healthcare costs, increase staff satisfaction and maintain safer patient care.[71] (p.1028)

Lartey's systematic review recommended the following interventions be implemented in healthcare and organizational levels to assist in increasing the retention of nurses:

- Experienced nurses need to communicate with leaders to identify programs that facilitate a better work environment and foster their retention and contribute to research at the unit level
- Frontline nurses need to be involved in and contribute to evidence based knowledge to improve their work environment
- Implementation of professional practice models promoting nurses' autonomy, increased accountability and shared governance need to be adopted (magnet hospital features)
- team oriented strategies need to be embedded
- Nurse leaders need to foster better work environments and take up transformational leadership styles
- Training and support for nursing management.[71] (p.1033)

Workplace culture has significant economic and organizational imperatives. A healthy workplace has systems and structures in place that support healthy human interactions and relationships. This is important not only for nurses' learning, but more broadly for health care organizations and whole of health systems as the economic consequences and benefits for workforce stability and retention are clear. Increased job satisfaction, related to work climate characteristics is well correlated with intention to stay and low nurse turnover rates[74]. Therefore, by way of addressing workforce retention issues, organizations are well advised to seriously consider strategies to support nurses' learning and foster healthy workplace cultures.

Specific strategies to address workforce stability and retention include those that support meaningful work, work-life balance, access to a mentor and adequate orientation, as well as strategies that promote teamwork, mentoring and leadership engagement.[74] Importantly, not only should health care organizations provide a healthy workplace culture, but they should also *promote* this culture. Organizations' 'attractiveness' *and* the perception of attractiveness by nurses, both play a significant role in increasing job satisfaction and decreasing nursing turnover.[74]

Although Lavoie -Tremblay notes that 'creating a healthy work environment is a strategy that fosters retention of all healthcare workers, regardless of their generation',[75](p.420) if seriously addressing nursing retention through understanding an organization's workforce, *customisation* of strategy is important, and there is not necessarily a 'one strategy fits all'. Consideration of the generational make up of the organization's nursing workforce is recommended by Lavoie-Tremblay[75] , who noted specific differences required in the work environment by three different generations of nurses: 'If generation-

specific retention strategies are developed, these should focus on the three areas identified to have intergenerational differences: challenges, absence of conflict, and warmth'.[75](p.420) The literature provides examples of these areas that make intergenerational differences:

> providing educational and career support; allocating time and financial support for educational advancement, research, special projects, and publications; encouraging the participation of nurses in reviewing, updating, and initiating policies and procedures founded on evidence-based practice and research; and improving work climate, which results in facilitating positive outcomes for nurses, leading to less turnover and intention to quit.[75] (p.420)

Hayes supports the above by also noting that there is a growing body of research that examines nursing turnover from a generational perspective, recognizing that recruitment and retention plans should consider generational needs.[76]

Understanding the link between job satisfaction and nursing turnover is also important to strategically influence the workplace culture and therefore nurses' learning experiences, within an organization. From the viewpoint of work places tipping into stressful and negative environments (related to the culture) Zangaro[77] notes job satisfaction is strongly correlated with job stress and warns that this has implications for improving the work environment to increase nurses' job satisfaction.

Also contributing to nursing workforce shortages is the ageing of the nursing workforce; this is well established in the literature,[69, 71, 75, 76, 78] and a as consequence, the issue of 'work ability' is coming to the fore.[79] Work ability is defined by Rongen as 'the self-perceived degree to which a worker, given his or her health, is physically and mentally able to cope with the mental and physical demands of his or her job'.[79] Work ability is a relevant factor in understanding the relationship between nurses' learning experiences, workplace culture, and nursing retention. Rongen pithily summarized the essence of this relationship by noting that nursing turnover was reduced in those who were supported by their peers and worked within a team environment.[79] Crucial to the extension of nurses' work ability are such things as support, professional development, appropriate work demands and opportunities for advancement.[75] Consequently, we can see that nurses' learning experiences are influenced by the complexities within workplace culture to such an extent as to impact on their work ability.

Workplace culture and organizational practices have a significant impact on nurse's work demands and workloads, as well as consequent learning and patient care outcomes.[26, 80, 81]. Nursing assessment, decisions, actions and outcomes can all affect patient/client situations, well being, deterioration recovery

and life. From a workplace learning, and patient outcome viewpoint, it is crucial not to overwhelm a nurse's already high demand work role,[26] or there is the specific risk that task-related learning will be compromised.[82] This suggests a risk that in certain situations nurses will not learn as required and this could negatively impact on patient care and related decisions. Etty refers to a heuristic model that identifies "four major task characteristics that may influence learning consequences: job demands, variety, autonomy, and feedback". [82] However, Etty is impartial in representation of these characteristics and states:

> We found moderately strong evidence for a positive relation between job demands and autonomy on the one hand and learning consequences on the other, suggesting that these task characteristics indeed promote learning.[82] (p.370)

The above is balanced with the cautionary observation that:

> The strength of these relationships is such that it seems safe to assume that having high job demands is conducive to employee learning behaviour. Note, however, that these demands should not be overwhelmingly high; in such cases, adverse consequences for learning behaviour may be expected.[82](p.372)

Parallel to the task related learning nurses are required to achieve within the workplace is the cognitive workload to be attended.[26] Nurses' workplaces are by their nature complex, cognitively demanding areas. Etty provides an explicit understanding of the cognitive processes related to learning required within these environments by observing that:

> the relationship between task characteristics and learning consequences is the construction of a *mental model* (i.e., an internal representation of an external system; cf. Brewer, 2003). When job demands are high, employees must integrate existing and new knowledge or skills to perform the task accurately. This implies that the internal representation of the external system becomes more valid and complete, i.e., the employee is ''learning''.[82] (p.364)

The importance of retaining a skilled workforce is underscored in the literature.[67, 68, 71] Individual patient care, as well as health care organizations, are both increasing in complexity. Henderson[72] draws on the literature to note that 'There is a constant demand for highly skilled nurses within the acute-care environment. Learning situated in the clinical context offers the rich experiences that contribute to a body of practice knowledge that enhances individuals and a team's care provision'.[72]

Organizational culture, nurses' learning and patient safety

Within the workplace culture, time or 'busyness' has been identified as a significant barrier to, as well as stressor on nurses' learning, particularly manifest in the day to day workloads nurses manage.[26] To grasp the level of influence these workloads have on both nurses' learning and patient outcomes it is useful to co-relate these factors with that of patient safety. In relation to the co-relation of these factors Ross-Walker observes the following:

> There is insufficient organizational focus on the time registered nurses require for clinical education, supervision and mentorship of students, less experienced registered nurses, and other nurses (such as enrolled nurses) and ancillary workers which has substantial implications for patient safety, quality of care, and preparation and retention of the next generation of nurses.[26]

The literature supporting organizational culture interventions related to patient safety culture has progressed significantly over the last decade.[19, 20, 22] Incorporating patient safety into the equation concerning both learning and nursing workloads must also consider the significant cognitive component within nurses' work. Indeed Ross-Walker discussed the 'cognitive workload' that nurses experience from a range of workplace factors and warned that inadequate time to manage cognitive workload could increase the 'risk of adverse patient outcomes'.[26]

Therefore, understanding nurses' workplace experiences and how this influences their learning is crucial to ensure the tasks, decision making and care nurses provide are all done within a framework that allows a safe space for adequate cognitive functioning- i.e. allows time for nurses to 'think', learn and make the best possible decisions to enable the provision of the best possible care.

Our understanding of patient safety and what is required to sustain a culture of patient safety has been significantly validated over the past 10 years.[20-23, 83] It therefore cannot be underestimated that in order to provide the highest quality and level of safety for our communities, our health care organizations need to build and sustain a culture of safety. A significant component of this is to ensure that nurses are also within a culture that supports their learning, the human error component within an unsafe culture is well established[83] and to support nurses in providing the best and safest care they must also be supported in their learning.[21]

It can therefore be seen that a healthy workplace culture is also a workplace with a thriving patient safety culture; indeed it is difficult to see how they are not contingent. With the imprimatur of a patient safety culture within health care organizations, barriers previously discussed in relation to nurses' learning must also be addressed at the fundamental organizational systems, structure, human relationships and consequent culture level.

However, there is a risk associated with an 'over emphasis on culpability of systems within an organization'. Ulrich observes that systems alone cannot be pointed as a 'scapegoat' in sustaining a culture of patient safety and is clear in her estimation of the significance of the nurse's role in relation to patient safety:

> Not only are nurses responsible for providing safe patient care, we are also responsible for creating an environment in which others can provide safe patient care, and for being the last line of defence when needed between the patient and potential harm. Having a deep understanding of patient safety and patient safety culture allows nurses to be the leaders we need to be in ensuring that our patients are always safe.[19] (p.456)

Nursing accountability is part of the professional practice role[2] and nursing practice is contextual, so in addition to organizations ensuring policies and procedures to support nursing surveillance and intervention, nurses too are accountable to practice safely and in accordance with surveillance and safe practice interventions.[21]

Translation of evidence into practice

Nurses' workplaces can be toxic, unhealthy environments;[84-90] however, they do not need to remain so. Evidence for what constitutes a healthy workplace is clear.[3, 18, 33, 91-94] Workplaces can be environments where nurses flourish in their learning and practice, and patients can expect best practice and good outcomes. In order to implement the recommendations presented in the systematic review under discussion, health care leaders, and nurses in particular, need to take up the mantel and follow emerging paths to translate this research into practice.

In particular, leaders need to understand the culture present within workplaces and organizations, and work to provide the systems and structures within those cultures to support nurses' learning

experiences; but how to do this? Working systematically, and with strategic intent to translate evidence into practice supporting the JBI approach to translational science is a useful place to start.[45] As a central tenet to translating evidence into practice, understanding an organization's culture, working within it and with the nurses to change the culture where necessary, is a crucial part of this. If leaders are committed to workplace learning for nurses, and best practice for patients, then 'cultural intelligence'[45] becomes vital. This is supported in the JBI document entitled '*A Strategy for Strengthening the Translation of Evidence into Action across JBI Programs'*:

> "Taking time to learn about the culture where change is being implemented is critical to the process of implementation. Spending time learning about how an organization operates on a daily basis provides the researcher, clinician, educator etc. with an opportunity to learn about the different organizational structures and processes and how decisions are made.[45] (p.16)

Schein also understands this and has many documented case studies[24] of immersing himself in organizations to observe the culture and people and work with them to understand and change the culture to achieve outcomes.

Kitson's work from the late nineties, still relevant today, noted three key elements in the translation of evidence into practice –'the level and nature of the evidence, the context or environment into which the research is to be placed, and the method or way in which the process is facilitated'.[95] Health care managers, in collaboration with researchers and policy makers, need to remain cognizant of these factors, as well as vigilant to new evidence within health care and its translation into practice.

More recently, the Joanna Briggs Institute discusses the C.L.A.R.I.T.Y. cycle for translating evidence into practice and provides a detailed guide relating to the cyclical nature of translating evidence into practice.[45] Below is the blueprint for leaders across health disciplines to collaborate and reform our health care workplaces:

> According to the JBI EI framework there are three governing principles for the effective and sustained implementation of the best available evidence into policy and practice:
>
> 1. Understanding the culture
> 2. Capacity building of both individuals and organizational systems
> 3. Supportive, reinforcing and sustaining infrastructure.[45] (p.16)

The C.L.A.R.I.T.Y cycle takes into consideration many of the factors identified within the systematic review under discussion that relate to facilitators or barriers to a nurse's learning experience within the workplace. Therefore, although the implementation of evidence into practice is an emerging science, there are paths to follow to aim for the best outcomes in translating recommendations from this

systematic review into practice.

The strength of the recommendations within the presented systematic review is underpinned by 105 findings (85 unequivocal and 20 credible) from 14 quality studies. The challenge ahead is to work with researchers, heath care leaders and policy makers to influence the workplace culture, effectively influence nurses' learning experiences and enable the best possible patient outcomes.

Conclusion

The 14 papers included in the review under discussion have elucidated our understanding of nurses' learning experiences and how forces within the workplace culture influence these. The 105 illustrated findings have provided a rich source of evidence for understanding both facilitators and barriers to nurses' workplace learning (Refer to appendix 7: Barriers and facilitators to nurses' learning).

Importantly, the learning that takes place within the workplace, and is influenced by the workplace culture, is also relevant to the implementation of evidence based practice and the achievement of safe patient outcomes.[5, 6, 19-23] Furthermore, the linking of nurses' learning experiences to culture and patient outcomes could be a hallmark for future education, management and practice strategy.

It can now be stated with assurance that a healthy workplace culture is a pre-requisite for nurses to experience valuable and relevant learning in the workplace.[8-12, 18, 51, 56, 58, 96] To emphasize the importance of nurses' learning in the workplace it has been asserted that working and learning cannot be separated – that one is contingent upon the other.[7] If working and learning are contingent, then the nursing profession must take special heed of Billett's declaration regarding the workplace environment:

> The invitational qualities of the workplace will shape the potential of both the learning through everyday activities and those intended to be provided through intentional guided practices such as guided learning strategies. These reciprocal qualities emphasize the need to see learning perhaps more broadly as an ongoing process of engagement in conscious thought... [28] (p.478)

Recommendations for the clinical practice workplace

The following recommendations are made for the clinical practice workplace:

1. Health care organizations, when allocating and managing budgets, resources, time and staffing, should provide clear links between management and education practice that actively support and value nurses' learning and enable nurses to demonstrate accountability for their learning (Grade A).

2. Workplaces should implement policies, procedures and systems that value and support nurses in accessing their peers, expert nurses, preceptors, mentors and educators (Grade A).

Implications for research

It has been noted that workplaces that actively facilitate the application of nurses' learning back into the workplace provide an effective 'transfer climate' and can contribute to practice development. Therefore further qualitative and comprehensive research is required to elucidate extrinsic factors impacting on learning transfer within the workplace, as well as intrinsic factors related to learning within the nurse. Regarding the latter point, research needs to focus on the detail of the nurse's personality, feelings, beliefs and inner experience.

Organizations that enable nurses to work and learn as an integrated experience and hold nurses accountable for learning, can assist the application of nurses' learning into clinical practice. Future research then should also focus on the concepts related to the learning transfer climate such as: strategic links, supervisory support and nurses' accountability and learning.

Summary of Findings

Recommendations from the systematic review findings presented within this thesis derive from those listed fully in Appendix VI: List of study findings and illustrations. To establish confidence in the strength of the recommendations derived from these findings the 'ConQual' approach has been applied in the 'Meaningfulness summary of findings' table below. ConQual is an approach to generate a qualitative 'summary of findings' table and aims to classify qualitative study findings with consideration of criteria relating to type of data and dependability and credibility of findings. ConQual uses a process to establish confidence in the synthesized results of the qualitative research.

The ConQual approach has been recently adopted by the Joanna Briggs Institute and Munn, Porritt, Lockwood, Aromataris and Pearson[43] note the following:

> The proposed system would then give an overall score of High, Moderate, Low or Very Low. This ranking can be considered a rating of confidence in the qualitative synthesized finding, which we have called 'ConQual'.[43](p.5)

Table 5: Meaningfulness summary of findings

Systematic review title: The influence of workplace culture on nurses' learning experiences: a systematic review of the qualitative evidence. **Participants:** nurses working in a Western acute health care organization. **Types of studies:** qualitative evidence including, but not limited to, designs such as phenomenology, grounded theory, ethnography, action research and feminist research. **Context:** This review considered studies that included nurses working in an acute health care organization within a Western culture.					
Synthesised Finding	Type of data	Dependability	Credibility	Score	Comments
Organizational influences Enabling nurses to demonstrate accountability for their own learning, along with clear organizational systems that provide resources, time, adequate staffing and support, demonstrates encouragement and value of nurses learning and education. *(synthesized finding 1).*	**Qualitative**	**High**	***Moderate** ↓ **1**	**Moderate**	*Downgraded one level due to mixed findings (Un-equivocal [U] & Credible [C]) 46U + 12C 58 mixed findings
Relational Dynamics Nurses value their peers, expert nurses, preceptors, mentors and educators to facilitate and encourage their learning and professional development. *(synthesized finding 2).*	**Qualitative**	**High**	***Moderate** ↓ **1**	**Moderate**	*Downgraded one level due to mixed findings (Un-equivocal [U] & Credible [C]) 39U + 8C 47 mixed findings

Conflict of Interest

There are no conflicts of interest.

Limitations

It was stated previously in this thesis that *The quality, value and type of learning the nurse experienced within the workplace environment was not explicit, rather it was embedded in the facilitators and barriers of learning that relate to the workplace culture*. In essence, this means that most of the papers within this study referred to the barriers or facilitators to nurses' learning experiences in terms of the influence of workplace and or organizational culture on those experiences. This was within the mandate of the paper's objectives; however, it was at the cost of exploring and understanding more deeply the nurses' feelings, beliefs or intrinsic and individual experience in relation to their workplace learning. Therefore, understanding the intrinsic and unique feelings of the individual nurse in relation to their workplace learning experience was a limitation of this study.

A further limitation relates to the studies considered for inclusion in this review being in English only. This resulted in some studies being excluded, though a broad representation of countries was still obtained for this systematic review.

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Appendices

Appendix IA: Detailed search strategy, PubMed Logic Grid

PubMed: 1+2 +3 + 4 Advanced Search = 2,265 results

1. Nursing	2. Learning	3. Workplace culture	4. Qualitative research
nursing[mh:noexp] OR nursing[mh] OR nursing[tw] OR nurses[mh] OR nurses[tw] OR nurse[tw] OR clinician[mh] OR clinician [tw] OR health [mh] OR health [tw] OR specialties[tw] OR specialties[tw] OR nursing staff[mh]	learning[mh:noexp] OR learning[tw] OR nurse education*[tiab] OR education[mh] inservice training[mh] OR inservice training[tw] OR staff development[tw] OR continuing education [tw] OR professional development[tw] OR post-graduate learning[tw]	Service culture[tw] OR workplace culture[tw] OR work place[tw] OR culture[tw] OR work culture[tw] OR organizational culture[mh] OR organizational culture[tw] OR organizational culture[tw] OR corporate culture[tw] OR ethos [tw] OR service environment[tw] OR service environment*[tw] OR organization environment[tw] OR organization environment[mh] OR work environment[tw] OR corporate environment[tw] OR organization climate[tw] OR organization climate[tw] OR corporate climate OR support[tw]	Qualitative research[mh] OR qualitative research[tw] OR experience[tw] OR lived experience[tw] OR perception[tw] OR perceived[tw] OR understanding[tw] OR ethnography[tw] OR phenomenology[tw] OR feminist research[tw] OR critical research[tw] OR action research[tw] OR systematic review[tw] OR phenomenolog*[tw]

Appendix IB: Search strategy results

CINAHL final search terms, 2 October 2013*: 11,535 results*

	AND	**AND**	**AND**
nursing OR nurses OR nurse OR clinician OR health	learning OR education OR "staff development" OR "continuing education" OR "professional development" OR "post-graduate learning"	"Service culture" OR "workplace culture" OR "work place" OR culture OR "work culture" OR "corporate culture" OR ethos OR "service environment" OR "organization* environment" OR "organization* environment" OR "work environment" OR "corporate environment" OR "organization* climate" OR "organization* climate" OR "corporate climate" OR support OR "organizational culture" OR "organizational culture" OR "organization* culture" OR "organization* culture" OR "corporate culture"	"Qualitative studies" OR "qualitative research" OR experience OR "lived experience" OR perception OR perceived OR understanding OR ethnography OR phenomenology OR "feminist research" OR "critical research" OR "action research" OR "systematic review" OR "grounded theory"

SCOPUS final search terms, 13 October*: 1,990 results*

	AND	AND	AND
(nurs*)	learn* OR educat* OR train * OR "staff development" OR "professi onal development")	workplace culture" OR "organization* environment" OR "work environment" OR "organizational culture" OR ethos)	(qualitative OR research OR study)

Embase final search terms, 13 October 2013: *1,566 results*

	AND	**AND**	**AND**
(nursing/exp OR nursing OR nurses/exp OR nurses OR nurse/exp OR nurse OR health/exp OR health OR 'nursing staff'/exp OR 'nursing staff')	(learning/exp OR learning OR 'nurse education'/exp OR 'nurse education' OR education* OR 'inservice training'/exp OR 'inservice training' OR 'in-service training'/exp OR 'in-service training' OR 'staff development'/exp OR 'staff development' OR 'continuing education'/exp OR 'continuing education' OR 'professional development'/exp OR 'professional development')	(culture/exp OR culture OR 'organizational culture'/exp OR 'organizational culture' OR 'work environment'/exp OR 'work environment' OR 'organization climate'/exp OR 'organization climate' OR 'organization climate'/exp OR 'organization climate')	('qualitative research'/exp OR 'qualitative research' OR experience/exp OR experience OR 'lived experience'/exp OR 'lived experience' OR perception/exp OR perception OR understanding/exp OR understanding OR ethnography/exp OR ethnography OR phenomenology/exp OR phenomenology OR 'action research'/exp OR 'action research' OR 'systematic review'/exp OR 'systematic review')

ERIC final search terms, 11 November 2013: *289 results*

	AND	**AND**	**AND**
nursing[mh:noexp] OR nursing[mh] OR nursing[tw] OR nurses[mh] OR nurses[tw] OR nurse[tw] OR clinician[mh] OR clinician [tw] OR health [mh] OR health [tw] OR specialties[tw] OR specialties[tw] OR nursing staff[mh]	learning[mh:noexp] OR learning[tw] OR nurse education*[tiab] OR education[mh] inservice training[mh] OR inservice training[tw] OR staff development[tw] OR continuing education [tw] OR professional development[tw] OR post-graduate learning[tw]	Service culture[tw] OR workplace culture[tw] OR work place[tw] OR culture[tw] OR work culture[tw] OR organizational culture[mh] OR organizational culture[tw] OR organizational culture[tw] OR corporate culture[tw] OR ethos [tw] OR service environment[tw] OR service environment*[tw] OR organization environment[tw] OR organization environment[mh] OR work environment[tw] OR corporate environment[tw] OR organization climate[tw] OR organization climate[tw] OR corporate climate OR support[tw]	Qualitative research[mh] OR qualitative research[tw] OR experience[tw] OR lived experience[tw] OR perception[tw] OR perceived[tw] OR understanding[tw] OR ethnography[tw] OR phenomenology[tw] OR feminist research[tw] OR critical research[tw] OR action research[tw] OR systematic review[tw] OR phenomenolog*[tw]

ProQuest final search terms, 30 November 2013*: 3,338 results*

	AND	**AND**	**AND**
AB,TI(nursing or nurses or nurse)	AB,TI(learning or "nurse* education" or education or "inservice training" or "staff development" or "continuing education" or "professional development" or "post-graduate learning")	AB,TI(service or workplace or work or organization* or organization* or corporate or service and environment or climate or culture)	AB,TI(qualitative or research or experience or "lived experience" or perception or perceived or understanding or ethnography or phenomenology or feminist research or critical research or action research or "systematic review")

Appendix II: QARI appraisal instruments

JBI QARI Critical Appraisal Checklist for Interpretive & Critical Research

Reviewer _____ Date _____

Author _____ Year _____ Record Number _____

	Yes	No	Unclear	Not Applicable
1. Is there congruity between the stated philosophical perspective and the research methodology?	☐	☐	☐	☐
2. Is there congruity between the research methodology and the research question or objectives?	☐	☐	☐	☐
3. Is there congruity between the research methodology and the methods used to collect data?	☐	☐	☐	☐
4. Is there congruity between the research methodology and the representation and analysis of data?	☐	☐	☐	☐
5. Is there congruity between the research methodology and the interpretation of results?	☐	☐	☐	☐
6. Is there a statement locating the researcher culturally or theoretically?	☐	☐	☐	☐
7. Is the influence of the researcher on the research, and vice- versa, addressed?	☐	☐	☐	☐
8. Are participants, and their voices, adequately represented?	☐	☐	☐	☐
9. Is the research ethical according to current criteria or, for recent studies, and is there evidence of ethical approval by an appropriate body?	☐	☐	☐	☐
10. Do the conclusions drawn in the research report flow from the analysis, or interpretation, of the data?	☐	☐	☐	☐

Overall appraisal: ☐ Include ☐ Exclude ☐ Seek further info. ☐

Comments (Including reason for exclusion)

_____

_____

_____

Appendix III: QARI data extraction instruments

JBI QARI Data Extraction Form for Interpretive & Critical Research

Reviewer _____ Date _____

Author _____ Year _____

Journal _____ Record Number _____

Study Description

Methodology

Method

Phenomena of interest

Setting

Geographical

Cultural

Participants

Data analysis

Authors Conclusions

Comments

Complete Yes ☐ No ☐

Findings	Illustration from Publication (page number)	Evidence		
		Unequivocal	Credible	Unsupported

Extraction of findings complete Yes ☐ No ☐

Appendix IV: Included studies and extraction data

Study	Methodology	Methods (qualitative data collections techniques)	Participants	Phenomena of interest(P1-3) (as described in findings)	Authors (Article): Conclusions (C) Recommendations (R) Result (RS)	Reviewer's notes and conclusions
Aleco, Violet Nour. Theory becoming alive: The learning experiences of newly graduated nurses. Dissertation:[University of Calgary(Canada)]; 2009.	**Classical grounded theory method** This proposed study used grounded theory method to study nurses' learning experiences during the first three years after graduation. The time-frame of three years after graduation is appropriate as it will allow the new graduates to have had a sustained period of clinical experiences allowing sufficient time for reflection and contemplations of their experiences. **Aim**: The purpose of this research was to explicate nurses' learning experiences in clinical settings... and articulate how learning from experiences contributed to the development of the nurses' professional expertise (p6)	Data were collected using informal interviews, observations, and field notes. Theoretical sampling was used to achieve maximum representation within the sample. Data were analyzed using constant comparative analysis which resulted in the generation of a core variable "theory becoming alive" and four supporting categories and their corresponding sub-categories.	14 registered nurses	Nurses' learning experiences in clinical settings	Aleco made numerous recommendations, below are selected significant recommendations: **Recommendations for Nursing Services** ...that nursing administrators in the healthcare services address the salient issues related to the orientation and socialization of newly graduated nurses in clinical settings. p199 **Supportive Clinical Environment** It is therefore very essential that managers in clinical settings create an environment that is conducive to teaching and learning and to encourage new nurses to feel safe in asking questions. A climate of openness, respect, acceptance, and support is essential for learning in clinical settings (Merchant, 1989).p201 **Professional development** Structuring and conducting professional development programs are essential for the progress of healthcare organizations and the promotion of quality patient care.p201 **Preparation of First-Line Managers** A written protocol of how nurses become eligible to progress into their developmental levels, regardless of time, might be valued as good practice. p203	Nurses learning in the clinical environment - workplace – focus on neophyte nurse in their first 3 years of practice This article explored the influence of factors (including workplace culture) affecting nurses learning experiences- predominantly as they relate to their first three years in the clinical practice environment– (i.e. how the culture supports learning)
Bahn D. Orientation of nurses towards formal and informal learning:	**Phenomenological**: Exploratory study	Semi-structured and one-to one personal	enrolled (division 2) and registered	P1 Reasons and motives for nurses taking	**C1**'Management has a responsibility to encourage staff	Nurses learning 1. In the workplace 2. **Released for PD or**

motives and perceptions. Nurse Education Today. 2007 Oct; 27(7):723-30.	**Aim**- to gain information on the current orientation of enrolled (division1) and registered nurses towards continuing education & lifelong learning (p723)	interviews Tape –recording and transcribing with coding & participant permission	nurses who have or are currently taking part in CE, n =162 Total participant EN & RN numbers n =162: EN (div 2) n =42 RN n= 58+15+28 =101 Withdrawals n=19 (p726)	part in various categories of learning. P2 Factors that influence nurses' learning activities and the views & perceptions of their learning experiences	participation but equally, it is the nurses' responsibility to take a proactive role in the formulation of the organization's training/learning program.' p729 **C2** 'Effective resource management is needed to encourage and promote all levels of professional development, which can only be achieved if managers are aware of what resources are available for educational purposes and how to access them'. p729 **C3** 'Nurses need to reflect critically on the reasons why they sometimes have no say in what professional development is available to them'. p 729 **C4** 'Outlining selection procedures and a clear rational for the allocation of contestable funding must be in place to ensure fairness and equity'. p729 **C5** '...regular professional appraisals **R1** 'Further research on the possible attendance or non-attendance by staff to health and safety training and specialist mandatory input and its effect on client care could help enhance the nurses' sense of responsibility and accountability for keeping up to date with developments in that area'. p729	**HE**. This article explored the influence of factors (including workplace culture) affecting nurses learning experiences- predominantly as they relate to HE & CE – (i.e. how the culture supports learning, but not in the workplace Some of the conclusions were critical of lower level nurses & their accessing formal learning experiences – i.e. their lack of proactively seeking appropriate PD. it would have been useful to compare the numbers of nurses who experienced this with those who didn't. Certainly the data regarding organizational culture, polices, procedures and individual manager roles and behaviours influenced nurses learning experiences
Beal, Judy A Riley, Joan M Lancaster, Diane R. Essential elements of an optimal clinical practice environment. J Nurs	**Phenomenological**: Descriptive qualitative design	Semi- structured interviews were conducted at the work- places of 36 experienced	Participants: 36 female registered nurses with a mean age of 47	P3 Work environment elements that develop and sustain	**Rs1** The major study finding is that the optimal practice environment embraces scholarly nursing practice and	This article focussed on highly educated nurses. The 'scholar' in nursing practice

Adm. 2008 Nov; 38(11):488 93.	**Aim**: to describe essential elements for an optimal clinical practice environment wherein scholarly nursing practice flourishes p488	clinical nurses. Data were collected using an open-ended interview guide that had been validated A subset of data from a larger qualitative study was analyzed using content analysis. Content analysis was conducted using the NVIVO (QSR International Pty Ltd., Cam-bridge, MA) software program.	years and with a mean of 24 years of experience.	scholarly nursing practice	balances care giving with professional development. p488 **C1** '...the findings provide new insights into unique key elements essential for the development of scholarly nursing practice in hospital environments'. p 488 & 492 **R1** Future research focusing on different professional practice models that support scholarly nursing practice is warranted. p492	includes the belief that the nurse is an 'active learner'. Therefore, learning experience is essential and the workplace is important to facilitate (or hinder) this. An optimal practice environment (i.e. workplace) is one that embraces (promotes& support?) scholarly nursing practice and a place that balances care giving with professional development (refer p 489)
Bjørk, I. T., Tøien, M., Sørensen, A. L. Exploring informal learning among hospital nurses. Journal of Workplace Learning. 2013; 25(7):426-440.	**Phenomenologic al**: Field study: A field study was conducted in Norway with data from a clinical setting collected in 2007–2008. (p428) **Aim**: to explore the opportunities for informal learning among nurses working on a hospital ward. (p426)	The study triangulated 3 methods of data collection: Participant observation, Ad hoc conversations and formal interviews. Analysis was an iterative process (Srivastava and Hopwood, 2009), starting during the first observational session, continuing during writing up of the field notes and also when reading detailed notes before the next observational session. (p430)	17 full-time positions for nurses, Of the nurses, eight had worked in the ward for less than 2 years and four nurses had between 15-20 years of experience. Two of the nurses were males	P1 Opportunities for informal learning P2 Nurses in a hospital ward	**C1** 'This study again underscores the importance of the leader's role in promoting informal learning through building a culture that facilitates and supports learning for all nurses on the ward'. p437 **R1** '...the important effect of physical structures on learning opportunities have not attracted much attention in nursing, and this should now be an arena for further research'. p437 **R2** There is a need for intervention studies that support nursing leaders in facilitating informal learning among staff. p437	The workplace culture can influence learning- both informal (in the workplace) & formal (outside the workplace). The leader is crucial in determining a culture that will support nurses' learning. The physical layout of the ward, how nurses navigate & use this & how the leader role models within it can all support or hinder nurses' learning. The physical structure is also part of a workplace culture. This article reinforced the notion that the leader's role is to develop a culture of mutual support and learning as well as to provide the structural support for knowledge sharing (from Bjork)
Chase, Linda Gayle. What makes learning meaningful for mid-career nurses? Masters Thesis:[Royal Roads University (Canada)]; 1999.	**Critical Inquiry**: Action research	Questionnaire Focus groups Individual interviews, taped & transcribed Data triangulation	279 surveys distributed, 51 returned Focus group – four or eight participants;	P1 The meaning of learning P2 For mid career nurses	The author identified multiple recommendations from her thesis including the following two key recommendations : 1. Provide a venue	Chases' thesis focussed on mid career nurses, so this data set was complimentary to other articles focussing on new

		(p429-430) The overall analysis of the data and the specific data analysis of the data collect and sorted within each data-gathering methods allowed for triangulation that is, identifying and corroborating similar patterns across the three data sources. (P22)	report unclear Three individual interviews		where nurses who have participated in ongoing learning or education in their area do expertise can share their knowledge. The emphasis would be to make time to prepare an education session and to reward them for their expertise and time. Support from the nurse manager and director of acute services is critical. 2. Broadcast and acknowledge those nurses who have completed or are in the process of completing any and all education courses. This emphasizes that nurses' ongoing learning is important and honoured. Mid career nurses describe themselves as ongoing learners with personal and career needs that are both work-related and life-related. 3. Other general conclusions from the thesis included the following: The organizations' leaders, both managers and directors need to encourage and support the development of relationships within nursing. The organizations' leaders need to reward learning about practice. When nurses examine and reflect on personal practice and collaborate with others, they are able to identify existing	nurses or advanced practice or expert nurses; it contributed to a rounded picture of nurse's experiences of learning & in particular what they require to enhance this. Chase found that nurses need to be respected and acknowledged for their learning, and importantly supported and facilitated in this by managers and leaders. Once again these nurses describe themselves as on-going learners and provide support for the notion that nurses are accountable, and reflective, but require organizational support to achieve this.

					theory and personal theory from current practice.	
Fox, R., Henderson, A., Malko-Nyhan, K. 'They survive despite the organizational culture, not because of it': a longitudinal study of new staff perceptions of what constitutes support during the transition to an acute tertiary facility. International Journal of Nursing Practice.2005; 11(5):193-199.	**Phenomenological:** Longitudinal descriptive study **Aim:** The purpose of this longitudinal study was to ascertain what new staff perceived as supportive elements implemented by the organization to assist their integration. (p193)	Focus groups. Data collection was carried out over two separate, but related, phases: Phase I (2–3 months after the commencement date of employment) and Phase II (6–9 months after the commencement date of employment). p194 RNs employed December 2001 - April 2002 recruited during Nursing Orientation. Data were analysed thematically by listening to tapes and reading transcripts to identify themes (P195)	16 RNs in Phase I and 12 RNs in Phase II Total n =28	P1 Nurses new to the organization perceptions' P2 Elements implemented by the organization to assist new nurses' integration	**R1** 'Rather than promising the offer of assistance, which is not always forthcoming, discussion is probably better focused around 'difficult' situations that new staff might encounter and strategies to deal with them when resources are often lacking'.p198 **C1**... the provision of adequate guidance and assistance through buddying with a preceptor and allocating time with the preceptor'.p198 **C2** 'Provision of education assistance and being 'welcomed' through support and friendly interactions'. p198 **C3** '... over time, new staff had a capacity to shift their focus from the organization providing these needs to a more self-reliant mode. In the self-reliant mode, new staff members learnt about the organization and fulfilled their needs through 'getting to know the system' and aligning themselves with the 'good' people'. p198 **C4** 'In light of these findings, it might be more astute for the organization during the orientation phase to give a more realistic appraisal of the situations that new staff might encounter'. p198-199	This article focussed on newer nurses. This article initially defines "transition" as term generally used to define a "period of time when a new staff member undergoes a process of learning and adjustment in order to acquire the skills, knowledge and values required to become and effective member of the health –care team. Therefore this & other articles build the picture of the nurses as learner & linked to being scholarly as well as one in transition & needing to learn. Culture can influence a transition & the role of the scholarly nurse.
Govranos, M., Newton, J.M., Exploring ward nurses' perceptions of continuing education in clinical settings. Nurse Education Today. 2013;	**Phenomenological:** A case study approach **Aim:** To explore	Four focus groups (total n =23). Groups created using convenience sampling.	Permanent nursing staff (n=50) employed on a medical-surgical ward;	P1 Clinical ward based nurses' values and perceptions P2 Factors that	R1 'Further work is required to explore nurses' perceptions of continuing education across a range of clinical areas; or whether	This article explored the role of the CNE (continuing nurse educator) in facilitating nurse's professional development.

http://dx.doi.org/10.1016/j.nedt.2013.07.003	clinical ward-based nurses values and perceptions towards continuing education and what factors impact on continuing education in the ward (p25)	Followed by six individual interviews (Staff were selected for interview according to their grade or level of experience – 1 each from the six levels in the table on p 3). Iterative data analysis throughout data collection (P2)	div 1 RNs & div 2 ENs	impact on continuing education in the ward	mandatory CPD has an influencing effect on their values'. p5 R2 Reducing the compartmentalisation of education and work by nurses requires attention'.p5 R3 Exploration of values and perceptions of the CNE and CE and organizational strategic goals may assist in finding a common vision'.p5 R4 'CNE's need to explore with ward nurses their values and beliefs so that barriers to CE can be addressed, to promote collaboration in creating a learning culture'.p5 C1 'The values clarification exercise challenged many nurses to uncover their beliefs within their practice setting, and how CE is integrated into their workplace culture'.p5	Continuing education (CE) was seen by the majority of participants as a necessary element of nursing practice, yet some nurses appeared 'apathetic' to it and a values clarification exercise supported this, exposing nurses values to learning. Time constraints and the everyday occurrences on a shift were significant impacts on nurses' learning. However, learning opportunities could still be created within that everyday environment by correct skill mix and allocation of seniors to support, work with & teach less experienced staff. The role of the CNE was meaningful & requires further clarification and study. For nurses to maintain professional development they need continuing education (CE) to be integrated into the workplace.
Hallin, K. and Danielson, E. Registered Nurses' perceptions of their work and professional development. Journal of Advanced Nursing.2008; 61(1):62-70.	**Phenomenological:** Qualitative report **Aim:** The aim of the study was to elucidate RNs' perceptions of their work and professional development 6 years after graduation. (p62)	Semi-structured interview Interpretive content analysis	Fifteen RNs: 13 women and two men (p63)	P1 Registered Nurses' perceptions of their work and professional development	**C1** 'The increasing complexity of health care requires extremely skilled RNs and co-operation between employers and educators'.p69 **C2'** New nursing programs need to match the growing demands and work environments, and workplaces need to offer professional development and create Magnet-type working environments'. p69 **C3** 'The unique contribution of nurses to patient care needs to be recognized if nurses are to be encouraged to 'grow old' in the	The phenomenon of interest in this paper was registered nurses' perceptions of their work and professional development. The paper focussed on RNs 6 years post graduation and again contributed to a rounded data set. This article further complimented Govranos, but noted that workplace education needs to match the growing demands of work environments & workplaces need to offer professional development and create magnet-type working environments.

					profession'. p69 **R1** 'More research is also needed into how to provide opportunities for RNs to continue to develop professionally whilst fulfilling their usual work demands'. p69	Hallin also called for nurses' achievements to be recognised.
Hughes, E. Nurses' perceptions of continuing professional development. Nursing Standard. 2005; 19(43):41-9.	**Phenomenological** **Aim**: To investigate NHS & private sector nurses' perceptions of the value of continuing professional development (and to analyse the factors that influence these perceptions and any potential barriers to CPD). (p41) Purpose of this was to sample the different populations to determine if the challenges in meeting the PREP standard (CPD) were similar in both settings.	Sequential triangulation Questionnaires (Self-administered questionnaire) and then interviews to follow up interesting lines of inquiry raised in the response to the questions." 8 nurses for follow up interviews Two hundred questionnaires administered (private=public nurses) Random sampling to 13 nursing homes & 2 NHS teaching hospitals	Two hundred equally divided Private nursing home nurses & public NHS nurses (i.e. one hundred each) 8 nurses for interview: 4 from private 4 from public	P1 NHS and private sector nurses' perceptions of the value of continuing professional development P2 Factors that influence these perceptions P3 Potential barriers to successful CPD.	**C1** 'Nurses perceive professional development in a positive manner irrespective of their clinical environment in the main'. p49 **C2** '...the impact of CPD in the nursing profession is diminished....'p49 **C3** 'The absence of reflection from the learning process is evident is some cases and this reduces the impact on practice that educational intervention can have'. p49 **C4** 'Reduced inability to alter working practices is evident in nursing, not only caused by colleagues, but by the leadership styles of managers'. p49 **C5** 'A lack of support has culminated in the frustration and disempowerment of nurses who are unable to improve their practices because of staffing, time and financial constraints'. p49 **C6** 'It is important that the nursing profession adopts a problem solving approach to the challenges surrounding professional development so it can offer the modern service the government has visualised'. p49 **R1** Leadership courses should be made	The aim of Hughes' paper was to 'investigate NHS and private sector nurses' perceptions of the value of continuing professional development (CPD), and to analyse the factors that influence these perceptions and any potential barriers to successful CPD'. On the whole, Hughes found minimal discrepancy in the 2 groups in terms of both groups valuing professional development, irrespective of work environment. However, only data related to acute environments was extracted - for the purposes of this review & to meet PICO. Hughes notes the absence of reflection in the learning process & the impact this has on practice. A reduced inability to alter working practices was evident in nursing & was related to peers, managers and leaders.

					available to all nurses to support and encourage each other through the change process. p49	
Jantzen, Darlaine. Learning stories: A study of positive learning experiences to create positive change. Masters Thesis:[Royal Roads University (Canada)]; 2004.	**Phenomenological**: Narrative inquiry ("Learning Stories") p65 (Interpretive- p66) **Aim**: to answer the question, "How can positive learning experiences of first-line nurses inform clinical education within Vancouver Island Health Authority?" (p1)	Eight participants told their story using the following methods: • providing detailed notes of their story • email recount • reflective journal The written recounts were followed by detailed semi-structured interviews Method of analysis: category analysis	8 self-selected first-line female nurses (p1)	P1 Positive learning experiences of first-line nurses P2 Inform clinical education within Vancouver Island Health Authority	Multiple recommendations were made by Jantzen, key of these include the following: An examination of the characteristics of a learning environment, a supportive practice environment and the role of helpers (Daloz, 1986) could provide important insight". (p150-151) "In contrast to creating simulated scenarios, nurse educators could facilitate learning out of the past experiences of the staff. There are financial benefits to using incidental workplace learning over in-services and paid educational days". p151 "The findings of this research project highlight the influence of organizational culture on nurses' learning. Recommendations related to the role of leadership, specifically administration, follow: Leadership, such as unit managers, could create a workplace culture that values and practices shared responsibility for learning through experience. A greater appreciation for practical wisdom in nursing practice could be nurtured. VIFIA, and other watchful organizations, should move to implement recommendations to increase support for first-line nurses, based on the work of Cooke	The purpose of Jantzen's paper was to explore the positive learning experiences of nurses and use these to inform clinical education in a Vancouver Health Region. Janzen found through narrative inquiry, that a supportive environment and the role of helpers were contributors to nurses' positive learning experiences. Janzen outlined the implications of her research for organizations, leaders and clinical educators.

					(2000, 2001), Ledgister (2003a; 2003b), Daly (2001a, 2001b) and Marsick and Watkins (2001). A much larger and more ambitious level, VIHA and other health care organizations need to create what I have identified as redemptive workplaces. The current organizational culture does not appear to support learning from mistakes, errors and misjudgements. Recent research and the findings of this project suggest that learning from negative experiences is possible, and critically important. **A** thorough examination of the role of culture in health care settings on nursing practice and professional development in nursing is an area for further study". (p152) Nurse leadership and nurse educators could gain skill in facilitating learning through experience by practice.(p153) "...learning from the expert or experienced in first-line nursing must be supported in the next five to ten years. With two decades of adult learning theory confirmed in this study of first-line nurses, significant effort needs to be made to re-frame organizational and societal understanding of professional development in nursing". *(p154)*	
Leonard, D. J. Factors perceived to facilitate and impede learning in the workplace. J Nurs Staff Dev. March-April 1994; 10(2):81-6.	**Phenomenological**: A case study approach **Aim**: To determine	The methods of data collection were interviews, critical incidents, observations and document	14 participants were interviewed: The vice president for	P1 Nurses perceptions P2 Factors that facilitate and impede learning	**All below- p85** **C1, (1-7)** "Factors perceived as facilitating learning in the workplace setting are (1) support for education by nursing	This study focussed on factors that facilitate or impede nurses' learning experiences more broadly across an

	factors that facilitate and impede learning in a hospital nursing staff development department.	reviews Data from a total of 14 interviews were collected and analysed Personal data inventories were also completed by interviewees. The analytic categories for organization and administration and program development developed by Irish (1983) were used	nursing, director of the staff development department & four instructors were interviewed. In addition two registered nurse volunteers from four educational programs were interviewed.		administration, (2) availability of education, (3) the inviting atmosphere of the staff development department, (4) small size, (5) informal learning, (6) the expert instructor, and (7) support by first line managers". **C2, (1-3)** "Factors perceived to impede learning are (1) written tests, (2) the nursing shortage and (3) the first-line managers" **R1** Provide test options – "test and exams tended to create stress and anxiety in adult learners in this workplace setting..." **R2** "Partnership in reaching continuing education goals." It is recommended the at the staff nurse work in partnership with the head nurse to pursue career objectives while meeting organizational goals."	organization- in particular, a staff development department. Leonard identified specific facilitators and barriers to learning in the workplace & found it was important to understand factors in the workplace that provide information on the learning needs of staff as these can inform learning program development and assist educators in developing strategies to overcome these barriers.
McCormack B & Slater P. An evaluation of the role of the clinical education facilitator. Journal of Clinical Nursing.2006; 15:135-144.	**Phenomenological:** Realistic evaluation **Aim**: to identify whether clinical education facilitators made a difference to the learning experiences of nurses in a large teaching hospital".(p135)	A realistic evaluation methodology was adopted derived from the work of Pawson and Tilley (1998). (p137) On-the-spot interviews (p137) One-to-one interviews and focus groups (p138) Survey (p138) **Data analysis** Descriptive statistics (mean scores of each construct) and inferential statistics (analysis of	Three focus groups, total participants n= 24 senior nurse managers (equivalent to grade I on the UK nursing clinical grading structure) and consolidation nurses (new Registered Nurses). (p138) 'On the spot interviews' Up to five nurses on each ward/department were interviewed by the researcher (from 50% random sample of all wards & depts. with a CEF)	P1 Clinical education facilitators P2 Impact on nurses' learning experiences P3 Large teaching hospital.	**C1** "Whilst the roles have had an important function in the active coordination of learning activities in the hospital, there is little evidence of the role directly impacting on the learning culture of clinical settings".(p143) **C2** "The outcomes from this evaluation can be subjected to further testing through ongoing evaluation of the outcomes arising from the learning mechanisms in place".(p143	The aim of McCormack's study was to identify whether clinical education facilitators CEF) made a difference to the learning experiences of nurses in a large teaching hospital. McCormack concluded that the CEF role mainly related to education coordination and although this was important it also limited the impact of the role on nurses' learning. In particular, the role had not impacted on the 'learning culture' of the organization.

		variance and post hoc tests) across the demographic data. Interview data were transcribed in full and the NUDIST 5/Æ0 software package for qualitative research (QSR International PTY Ltd, Melbourne, Australia) was used to manage the transcribed data and its analysis.	Survey: The total sample size was 342 nurses. (All Registered Nurses between the grades of 'D' (junior nurses) and 'I' (senior nurse managers) were identified as the target population for receipt of the NWI-R questionnaire. From this population, a stratified sample of 20% was sought)			
Rossi, Linda R. How nurses gain clinical expertise through informal learning in the workplace. Dissertation [Ann Arbor]: Columbia University Teachers College; 1995.	**Phenomenological**: Constructivist paradigm & case study approach **Aim**: to examine how nurses working in a hospital setting gained clinical expertise through informal learning.	Critical incident questionnaire, interview and organizational documentation review.	23 advanced practice nurses	P1 Informal learning strategies P2 How nurses gain clinical expertise P3 Workplace environment	**C1** Informal learning was essential to gaining clinical expertise. **C2A** Most informal learning resulting in gaining clinical expertise focused on the acquisition of the job skills themselves and occurred mainly through the individual learning mode. **C2B** The group and institutional learning modes were reported to be of far less importance in acquiring job skills, that is, in acquiring increasing levels of clinical expertise. **C3** Learning about the organization and learning about the self influenced clinical learning, but were not reported as essential to the acquisition of clinical skills. **C4** The gap between formal and informal learning is increasing exponentially owing to the explosion in medical technology. **C5** Several factors were found to facilitate	Rossi's paper focussed on how nurses gain clinical expertise through informal learning. In particular Rossi focussed on the type of informal learning nurse's experience and the processes or strategies through which they developed their clinical expertise i.e. "the conditions, interactions and other factors which facilitates or impedes such learning. Rossi's paper elucidated that informal learning – within the workplace was critical to nurses gaining clinical expertise. Less important was learning about the organization and self. Interestingly the role of self & peers was important when learning as a novice, and as expertise was gained, learning through observation of more expert nurses. Interestingly

					informal learning for nurses at UH while other factors acted to impede such learning. **R1** -**6** pp257-259	supervisors were more rarely sources of learning.
Swallow, V. M. Chalmers, H. Miller, J. Piercy, C. Sen, B. Accredited work-based learning (AWBL) for new nursing roles: nurses' experiences of two pilot schemes. Journal of Clinical Nursing.2001; 10:820-821.	**Grounded theory principles**: Qualitative design, (p820) **Aim**: To determine practitioners' views on the strengths and limitations of AWBL. (accredited work-based learning). p820	focus groups and semi-structured inter- views Data were gathered and analysed using the principles of grounded theory".p820	21 experienced accident and emergency nurses (group 1 AWBL course) (P820) nurses undertaking the BA (Hons) in Nursing Practice. participant Numbers not reported (group 2 AWBL course) (p820) 16 E-H grade nurses and five senior nursing/medical staff involved in developing AWBL curriculum) (p820).	P1Nurses' views P2 Strengths and limitations of accredited work-based learning (AWBL).	**C1** "AWBL was seen as a facilitated process which recognized inter-professional expertise and the knowledge arising from practice, enabled the development of individual practice and influenced service delivery through reflection and theoretical integration". (p821) **C2** "The synergy between clinical and academic development led to rapid learning which was relevant to practice, responsive to service needs and rigorous enough to meet quality standards. Initial scepticism about the flexible nature of AWBL was overridden by increased self-confidence arising from personal and peer recognition of the benefits to patient services which came from AWBL. Further AWBL developments, now underway in nursing as well as other disciplines, are being informed by the findings reported here". (p821)	This article focussed on Accredited work-based learning (AWBL) - this is a curriculum model which takes a flexible approach to learning and incorporates professional developmental and workplace learning into an education program; for the purposes of this study it focussed on post-graduate workplace learning. This study particularly focussed on nurses' views on the strengths and limitations of AWBL & explored their experiences in relation to this. Nurses articulated the issues that were important to them 'in relation to practice and academic development'. AWBL was seen as a facilitated process that enabled learning in the workplace & ultimately practice development. Further, it influenced the delivery of patient care through support of the reflective process and 'theoretical integration'.

Appendix V: Excluded studies

Reason for exclusion:

Inclusion criteria not met

1. Albert M. Developing a service-oriented health care culture. Hospital & health services administration. 1989 Summer;34 (2):167-83. PubMed PMID: 10293275. Epub 1990/02/03.
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Appendix VI: List of study findings and illustrations

Aleco, Violet Nour. Theory becoming alive: The learning experiences of newly graduated nurses. Dissertation: [University of Calgary (Canada)]; 2009.

Finding.	Illustration from Study	Evidence
Orientation...The participants' perspectives on the formal orientation program is described as helpful, reinforcing	"I really, really enjoyed the (AMNSP). It answered questions, that to be honest... I think new grad nurses are embarrassed to ask like what does a low haemoglobin mean what is a high white cell count... we talk about electrolytes and things you're embarrassed as a new grad to say I don't know what that means because you're afraid it'll impact how they see (nurses) practice. (pp110-111)	Unequivocal
the orientation program included too much information all at once and they suggested a follow-up on the orientation course, Calypso said:	"...orientation is so much information all at once I almost think we need to follow up on orientation like a month later because then it makes more sense when you've (p. 111)	Unequivocal
most of their learning happened while working on the unit	".. .the orientation was kind of an overview but really looking back I didn't learn a whole lot from that I wish I did, I wish I had the time to really study that and get to know that, but the majority of my learning has been like on the unit working on the unit." (p. 112)	Unequivocal
Learning under Supervision ... learning during this period is described as inadequate and unsatisfactory. This is expressed in the following narratives	"the clinical educators are very important it's good to know that there is someone there that if you have a question and nobody else can help you or everybody is busy that you know you can go to... since I've been here it's hard I haven't really seen the clinical educator a whole lot so it's hard to get certified at things if you have to seek them first." (p. 113)	Unequivocal
Discovering: clinical practice fell short of their expectations.	"I didn't know what to expect...in school I always had someone follow me and had someone to ask;" "not everything that's in the textbook is always what's happening with the patient;" "I read it in textbooks but to see it happen I need someone to bounce these ideas off;" "I find it easier to learn certain procedures because it's easier to relate them to the patient." (p. 116)	Unequivocal
they need at least one year before they become comfortable working in clinical settings	"Probably close to a year I started to kind of feel comfortable but I still don't feel totally comfortable like I know I feel comfortable with a lot of skills there's a few that still I am not." (p. 117)	Unequivocal
...learning in clinical settings was positively influenced by a supportive learning environment.	..."the unit is fairly supportive ... I learnt to prioritize (organize her work) from other senior nurses, from colleagues". "I have support around me, full support." This person described full support as "be able to be working independently but still have someone to bounce your ideas off and kind of be watching." (p. 117)	Unequivocal
On the other hand lack of support in the workplace had a negative impact on their learning.	"I found myself on a unit that was full of turnover...and support wasn't there and everybody hated their job." (p.118)	Unequivocal
...they learn better through doing, performing, and hands-on activities rather than watching someone else demonstrating the-how-to.	"I learn by doing so I think it's important for me to be doing things ... rather than watching people do them;" (p.118)	Unequivocal

Immersing...a discrepancy between their expectations and the expectations of the people (nursing service administrators and mangers [sic]) in the clinical practice	"My first job was challenging I was the only RN on the unit with LPNs so right away you're the charge nurse from the get go, so I think when you're a new nurse you don't really know what you don't know .. .when I look at my practice in XXX I think how scary and risky that practice really was the biggest thing is that I didn't know what I didn't know." (p. 159)	Credible
Nursing and Learning...initial learning experiences as stressful, uncomfortable, frustrating, not knowing what to expect, challenging, as well as experiencing feelings of nervousness	"Its kind of scary because it's much more acute from what I have seen before um and I mean too it's more scary because you don't have that person that you can continuously go to like to draw ideas ...its more independent thinking ... it's more thinking on your own and think on your feet." (p. 119)	Unequivocal
showing that she could handle things and do them by herself.	"...usually those were like bad experiences of feeling overwhelmed of having too much going on with my patients. Trying to manage all by myself because you want (sigh), you know, it's this thing in nursing where you want to show that you can handle a lot of things as a new grad and you know sometimes (sigh) you wouldn't want to ask for help, and you want to be able to do it yourself so that you knew you could do it so that, that's frustrating." (p. 120)	Unequivocal
no resourceful person that she could contact when she needed help with decisions related to clinical situations.	"I remember I needed to give vitamin K one time and they said through your mouth and we didn't have (oral) medication. Vials said IM or IV and nobody else knew what to do and there was no way I could find this information on the internet ... the pharmacy was closed and it was kind of oh! Where am I supposed to get my information from ...?" (p. 120)	Unequivocal
nurses want to protect themselves from being belittled or humiliated if they revealed their lack of knowing.	"what do you mean you don't know how to do this kind of thing, giving vitamin K, PO ... I didn't feel comfortable using IM or IV vial... I just need to protect myself and know that I was doing right" (p. 121)	Unequivocal
...astonishment and frustration when they found out that they are assuming a leadership role from the very beginning with no preparation for the nursing role.	"it was challenging because I was the one RN on the unit with LPNs, so right away I was a charge nurse from the get go ... so I think when you're a new nurse you don't really know what you don't know ... so when I went there I was really excited to work and very quickly learn that a lot of the responsibility was going to be on me and my decision making so that's where I first worked and I call it the school of hard knocks, because I really didn't have much in terms of support. It's not a big teaching hospital and not a lot of people to [consult] so that was my first experience." (p.121)	Unequivocal
...their learning experiences as immersing themselves and learning on their own, learning by doing and observing, asking questions, and doing much by practicing on their own.	"I think we could never have enough I think a lot of learning always is going to happen when you finish school even in fourth year when you do your practicum. You think you're practicing very independently it's not till you're actually working that you realize your mentor or your RN really does push you and help support you and take on a lot of the workload and decision making ... so you think you're doing a lot on your own but you're not."P122	Unequivocal
Learning in clinical settings was appreciated... because they found out that there are learning opportunities, practically, everyday.	"I learn by actually doing it, someone showed me how to do it the first time I'll remember it but I actually have to be able to do it continuously I need to be shown how to do it then I am okay." (p. 122)	Unequivocal

Making Sense of Theoretical Learning...learning experiences in real settings as different, meaningful and therefore "it sticks to the head," whereas learning in the classroom and in the nursing lab is hard to retain.	"I think any experience you have hands on with something it becomes more real in your mind and you understand it better versus you know having pathophysiology of it explained to you ... but once you see it and see how the disease process kind of affect the other systems and how, how it manifests and you know why you should be ambulating someone with pneumonia ... it all makes more sense ... it does than if it is just kind of this abstract concept.. .for me that's the way I learn, anyway, is hands on and seeing it and then I actually will know it and retain it versus abstract concepts ..." (p. 125)	Unequivocal
Fitting into the environment and communicating with the healthcare team members in the real clinical settings is described as demanding	... there are so many different areas of people involved in the care for that one patient so when you start on the unit not only you have to contend with learning all these skills that you're supposed to do you also have to learn you almost have to survive in this environment you just don't feel comfortable at first... you have to like fit into this environment and you have to find your role in it.. .1 think that is challenging for me it was pretty challenging ...(p.126)	Unequivocal
the participants often referred to using these guidelines as "looking up," "sticking," or "abiding by" the policies and procedure manual in their practice.	"I stick to the policies and procedures ... I look up procedures and policies and diagnosis on line;" Lillian said: "we know where to find the answers from computers, policy manual, from textbooks;" Bob said: "we were flipping through the manual...okay the manual is right here we can just read from it when we need to;"p128	Unequivocal
buddy shifts and supervised learning in clinical settings is very essential during the initial period of their work...	".. .because I haven't had experience in healthcare before so I was completely green behind the ears when it comes to just being in hospital .. .it's been a year and not just myself but there are other girls ... I haven't touched heparin and had no idea I didn't prime a line you know what I mean like I just didn't know. I didn't know it's very stressful and I think that it's very important that a buddy system or having a good clinical educator on the floor." (p. 128)	Unequivocal
Committing commitment to the profession... becoming informed practitioners, and recognizing the need for life-long learning	"... I am still learning everyday but I am not learning tasks any more ... so what I am learning now is um all those other things outside of the task like discharge planning, you know, what to tell patients to expect, I am focusing more on my interactions with patients and how to interact with them and I am learning also about what's in the community for long term care or assisted living I am learning all those other things ... I am relating more to theory like I have more time for communication with my patients now, and I try to remember all those you know therapeutic communication listening skills." (p. 131)	Unequivocal
...dissatisfaction with their job due to lack of recognition, appreciation, and lack of learning opportunities and mentoring.	"I found myself on a unit that was full of nursing turnover they were always having new people and I think the staff was suffering from constantly meeting new people and support wasn't there...I felt constantly on edge...I did not enjoy myself as far as learning goes and so after few months almost a year I wanted to move." (p. 132)	Unequivocal
Evolving,Becoming Aware: participants described their growth as becoming comfortable, knowing, confident, independent learners, and experienced.	"after two years you have more confidence, experience you build by doing, ... when things go wrong ... this is not part of the textbook, they didn't teach me this at school what do I do? Whereas now it's okay there's a problem let's look at it, let's take a deep breath what needs to be done now what can be done later you prioritize, what the situation is, it is a lot easier for me now versus being a novice." (p. 135)	Unequivocal

...clinical knowledge is acquired from interacting with and observing experienced nurses as well as through personal experiences in clinical settings.	"If you are a new grad and you're doing a chest dressing and there is a lot of drainage on the dressing there is nowhere in the literature where it says what action you could take and that's really when you need to draw on other peoples experiences. Asking every nurse, letting doctors know about it, is this normal for this patient or is this normal for any patient." (p. 136)	Unequivocal
Neophyte nurses tend to build stereotyped impressions about certain clinical presentations of patients...with more exposure to clinical situations, new nurses expand their knowledge and become more critical thinkers.	"I had a very sick patient on nights, ... we were thinking more towards sepsis and it ended up to be the beginning of renal failure because he wasn't zero output, but again with burns its different because there are signs and symptoms of infection, so it's a learning experience two years after graduating." (p. 136)	Unequivocal
Comprehending the Whole...at first they were relating to the patient's parts or the pathology, but as they became comfortable with their knowing and doing, they started to relate to the health of the whole person.	"So when I first learnt I was kind of just looking on the surgical site and the drains and just looking at what they touched I wasn't looking at the whole patient, I was so concerned with the flaps, the drains, the Foley output... now because of the experience, okay I can just quickly look at the surgical site and say that's what I expect to see like the swelling going down or firmness because of the oedema, I can briefly look at that and say okay I can spend more time with the patient and talk to her how are you feeling?" (p. 138)	Unequivocal
increased workload and low staffing ratios	"I just find the severity of the patients' sickness is getting worse so much and that makes the job heavier like people are not healthy, obesity is on the rise which puts more physical work on us... I find frustrating too is people's expectations when they come to the hospital.. .some families or patients who expect to get one-on-one every minute of care ... I am sorry I don't have time to even do basic ADLs... you didn't get a four year degree to run for the rest of your life, you leave work exhausted physically and mentally exhausted who would want to do that for twenty years." (p. 132-133)	Unequivocal

Bahn D. Orientation of nurses towards formal and informal learning: motives and perceptions. Nurse Education Today. 2007 Oct; 27(7):723-30.

Finding	Illustration from Study	Evidence
The learning experience. Taking part on formal study activities appeared to be problematic and it seemed to stem from a lack of regular educational appraisals.	"We are supposed to have one (regular appraisal) annually... I have been for five years... We should have them (regular appraisals) but it is virtually impossible at the moment..." (p728) For others the experience was different (p728) U "We usually see the manager yearly... if you have an interest in certain courses you are encouraged to do them. Study time is decided between you and your manager during your personal appraisal...but it would have to come from me wanting to do it".(p 728)	Unequivocal
Participants ...expressed feelings of dissatisfaction with their employing organization's lack of support to continue their post-registration education ...	"I found it quite hard because the trust did not help in any way, either financially or by allowing time for study days. I had to do it all in my own time and so did others." (p728)	Unequivocal
Attitudes to learning. Staff shortages and time constraint factors were reported as affecting interviewees' ability to attend study sessions, both mandatory and non-mandatory.	"It is all down to being able to spare the staff...if you need to do a day's work...the work comes first" (p. 728)	Unequivocal

Beal, Judy A Riley, Joan M Lancaster, Diane R. Essential elements of an optimal clinical practice environment. J Nurs Adm. 2008 Nov; 38(11):488 93.

Finding	Illustration from Study	Evidence
...working in a milieu that sets dual expectations for high standards of patient care along with high expectations for professional development... One nurse noted that the milieu of the workplace needs to shift to become a place where...	"there's room for thinking about problems in a different way, coming to different solutions that may have better outcomes."(p489-490)	Credible
The duality of expectations for high patient care standards and professional development results in an environment that fosters enthusiasm and optimism and has the important outcome of...	"raising the level of professionalism and refreshing [nurses'] pride'' ... ''It is a good place to work because they [the hospital] foster independent thinking and collaborative practice." (p. 490)	Unequivocal
...an inherent problem in nursing is how you can foster professional growth and take care of patients at the same time.	"You have to have an environment that allows nurses not to be at the bedside all the time, but [provides time] to be growing and learning...There are ways for the structure and management to allow that [to happen]."(p. 490)	Unequivocal
Openly Valuing Scholarly Nursing Practice.	"The culture of the hospital respects nursing. So therefore, when you feel that [respect], you give your best and the patient gets the best." (p.490)	Unequivocal
...an inherent gap between the expectation and the reality of how a workplace values scholarly nursing practice surfaced.	''On paper, [the administration] says, Yes, we value you. But will that garner me any more resources? Probably not.'' (p490)	Unequivocal
...frustration with their belief that they were not adequately supported for their level of practice expertise.	"I don't think nurses get that kind of administrative support when they are at an advanced practice level." (p. 490)	Unequivocal
Even Scholars Need Support	"I need help from the institution... time and expertise. I want to publish but I don't know how." (p.490)	Unequivocal
Of all the resources cited as essential, time was the predominant theme.	"I am free to do it [solving a challenging clinical problem] on my own time. I'm just not supported. (p.490)	Unequivocal
The participants strongly believed that mentors continue to be essential at all levels of career development, even for those at the pinnacle of their careers.	"You need mentors who can see what you bring to the table that you may not necessarily see in yourself. I know what is required to be a scholar and I love it. I am thankful to those around here who expect the best from all of us." (p.490)	Unequivocal
Seamless Support at Every Level	They overwhelmingly felt that a nurse manager who "makes things happen" and supports nurses at all levels of professional growth is critical. "I have had good nurse managers, but M brings out the best in people. She enables me to think beyond what I think of myself." (p. 490)	Unequivocal
Support for the development of scholars and scholarly nursing practice is also needed from the nurse executive team.	"When you have the top ones focusing on better development in nursing practice, that's the trickle down effect. If you don't have it from the top, then the ones down below aren't going to get that sense of accomplishment." (p.491)	Unequivocal
Support from peers was also considered essential. Enthusiasm and encouragement were noted to be important...	"Working with positive people who are upbeat and not with somebody who is going to be negative or lazy. If they are not enthusiastic then you feel that you can't get enthused around them because they will think that you are crazy." (p. 491)	Unequivocal

Participants shared that there were too many hurdles and obstacles to developing a scholarly nursing practice.	"I think that it would be good if the opportunities were made easier to achieve... It's not difficult to go to a conference. But if [the logistics] were instead of hard, made easy... I and on top of that encouraged as opposed to 'Oh I really need this switch for the conference day_ and 'Can you please put the conference day through?_ and ' Well I'll have to go on my own time then... I think that definitely would make it easier." (p.491)	Unequivocal
They spoke of the tangible value of an environment that supports learning from mistakes, that is, the opportunity to change patterns of practice that improve patient care and provide greater satisfaction to the nurse in the delivery of care.	"I had this plan. Okay this didn't work out so well, but maybe it didn't work out well at [this] particular time I [know] I'm responsible for how it turns out. But this great plan doesn't work out the right way.'' She continued her dialogue, describing a process of reaching out to her nurse manager to address the problem. ''You knock on her door, [she says] oh come on in, have a seat and I say look this didn't quite work out. What did I do wrong?" (p. 491)	Unequivocal
It is a 2-Way Street Even when the environment is supportive of nurses, they need to be willing to be supported.	"The issue is not support... Support is here. It is a willingness to use the support to do something that you think will be useful". (p.491)	Unequivocal
...frustration with the lack of motivation in some of their colleagues, which some nurses viewed as generational differences.	"Some are not interested in advancing. Some not interested in learning new things." (p. 491)	Unequivocal
Some participants expressed concern about the impact of the work schedule design on scholarly nursing practice.	"I was only there a couple of days a week. So, as my hours have increased and my access to the people who make things happen has increased, I now have the motivation, the time, the support, and the people to bounce ideas off of." (p. 491)	Unequivocal

Bjørk, I. T., Tøien, M., Sørensen, A. L. Exploring informal learning among hospital nurses. Journal of Workplace Learning. 2013; 25(7):426-440.

Finding	Illustration from Study	Evidence
Pre-rounds with physicians in the meeting room and the staff room	"interesting because I can listen to the physicians' discussion and experience what issues they think are important" (Rick).(p431) "It is your responsibility as the only nurse there to ensure that communication with the physicians work and that things are clear to both them and me".(p432)	Unequivocal
Handover in the morning and afternoon	... the handover was a setting for multiple learning possibilities as well as an occasion for dispute. "It's the important things we air and discuss, but I know some think that this should be discussed some other time. I think I can see a pattern – the nurses who work quickly themselves want the report to be short and to the point, and most of the students and inexperienced nurses want to discuss just like I and many of the other seasoned nurses". (p. 432)	Unequivocal
Distribution of work around the whiteboard	"I have never thought about those situations as a setting for learning, just as a way of organizing our work". (p.433)	Credible
"Floating around" in the staff room in dialogue with others...	"They (the physicians) make themselves available to us and some of them really love to teach without even being asked". (p.433)	Credible

working together with the patients	"I think they need me. I have expertise and one of my important contributions is to take the young ones with me and teach them. I like the difficult cases where there is a lot to do. I use them explicitly to show how i reflect on and decide on actions". (p. 434)	Unequivocal

Chase, Linda Gayle. What makes learning meaningful for mid-career nurses? Masters Thesis: [Royal Roads University (Canada)]; 1999.

Finding	Illustration from Study	Evidence
importantly there was a need to make the organization a "learning organization".	They described such things as "safety", "feeling ok to ask stupid questions", "expert support", and being valued for experience."(p.31)	Credible
...Learning needs to be personally useful & applicable	One nurse stated that she personally 'reflects' on action however several of the nurses pointed out that learning and retention were aided by partnering with others, by being mentored, and by 'doing' either by themselves or with others in a group setting (p. 25)	Credible

Fox, R., Henderson, A., Malko-Nyhan, K. 'They survive despite the organizational culture, not because of it': a longitudinal study of new staff perceptions of what constitutes support during the transition to an acute tertiary facility. International Journal of Nursing Practice.2005; 11(5):193-199.

Finding	Illustration from Study	Evidence
Themes identified at 2-3 months: The importance of a positive attitude of clinical staff and nursing management	"Our area has a good social network [among the staff] and this has made it a good environment to work in—better than where some others are working. I have been fortunate". Alternatively hostility (both overt and covert) of colleagues undermined all of the positive aspects of the transition program. Behaviors which demonstrated negative attitude included: 'When you are feeling insecure, it must show and the senior RNs recognize this and are very aggressive. It is a real wolf- pack mentality. Instead of helping, they seem to vent all their frustrations on you as you are at the bottom of the pile. I really got no support at all and I have found the whole experience devastating. The other staff just seem to be so hostile and everything is blamed on the new people'.(pp193-194)	Unequivocal
The need for adequate staffing levels of appropriate skill mix in the wards	"We need more time off-line as there is simply not enough time on a shift to do anything like look up and learn about your patients. You have to do it when you go home."... However, a positive response towards attempting to address poor staffing levels included: Even though I have heard of staffing problems elsewhere, my ward bent over backwards to make my transition easy. They made sure that I always had less patients at the beginning and, if they were of a higher dependency, I had a smaller load. (p. 196)	Unequivocal

Accessibility to learning opportunities and expertise...	“We have a good, positive nurse educator in our ward and he makes me feel I can ask for advice because everyone else is too busy to bother...There was no emphasis or even recognition of any educational role...But there were not enough clinical staff who could help you and no educator. They promised us all kinds of support during the induction but no one was there when it came down to it.” (p.196)	Unequivocal
Provision of supernumerary days	"Nursing is tough and many new nurses do not realize this. If they have a solid supernumerary period, it provides a good transfer into the reality of what life is like as a nurse while they are learning all about the place and the routine." (p.196)	Unequivocal
Preceptor and preceptee being rostered on the same shifts	“It is good to be on a series of shifts together because you can get into a routine and can also talk through mistakes together afterwards”. (p. 197)	Unequivocal
Allocation of a preceptor on a one-to-one basis	"It is great when you are able to work with your preceptor because you have always got someone to bounce queries against. It also means that you can discuss conflicting information. I had too many experiences where I stuck to the procedure manual as we were told, but some staff do exactly the opposite and tell you to ignore the manual. My preceptor was able to explain the differences and appropriate ways of modifying the manual." (p. 197)	Unequivocal
Themes identified at 6-9 months: Knowing the system...Understanding the way that the organization worked made a positive difference	"I have found that I am more assertive now and insist on help, or at least know where to go when I need help. I know the system now and it has made the world of difference." (p.198)	Unequivocal
Aligning with the good people	I am really self-reliant now and do not need a preceptor. I have some really great mates and we work as a team." (p. 198)	Unequivocal

Govranos, M., Newton, J.M., Exploring ward nurses' perceptions of continuing education in clinical settings. Nurse Education Today. 2013; http://dx.doi.org/10.1016/j.nedt.2013.07.003.

Finding	Illustration from Study	Evidence
Culture & attitudes... the nurses’ perception of their role as a nurse and what value CE can add to this role...Underpinning the theme is the importance of education and education versus the workplace.	‘to continue to fulfill our duty of care to patients and to maintain /reinforce the knowledge previously learnt’... OR ‘the perception is often that education is interrupting the work [and] education is compartmentalized to the side...Education is one thing and this is about work and even though people might say I need to learn that to do my job, they don’t look at a lot of education as work related’.(p. 3)	Unequivocal
...a culture of busyness; where tasks and patient care needs to be done within a time frame.	“Time is our biggest enemy” “You feel as nurses, you feel you have to get everything done” (p. 3)	Unequivocal
one on one learning was also seen as important	“invaluable...a great way to learn” (p. 4)	Credible
Participants saw senior staff as a valuable and accessible resource	“in a good way everybody has a role in education” (p. 4)	Credible
The need to be ‘up-to date’	“CE...maintains your skills...your professionalism...your confidences...it keeps your registration as well” (p.4)	Unequivocal

Being 'There'-Being 'Seen' (The role of the CNE (Clinical Nurse Educator and how they interact with the staff in meeting their CE requirements, in particularly (sic) emerged as an important influence.	"They've turned into more of a floater rather than an educator... also the way that our staff have been treating the educator, a lot of them are confused as to the role. So I think more of a role definition...and the educators really need to set boundaries...and support rather than do for" (p. 4)	Unequivocal
Importantly CE needs to be available when needed and in a timely manner.	"Getting your senior staff away from all those acutely unwell patients and getting the junior staff in...The younger staff don't get any exposure to it and they have to learn just the same. They need to learn to become those senior nurses." (p. 5)	Unequivocal
Inhibiting factors around CNE in the workplace	"Needs to be a closer link between management and education...as change will not be possible if they are not linked....education fails to capture the workplace context...I think that education works on the premise that it can stop and educate but the workplace, particularly a busy acute setting, doesn't stop...a lot of education could happen in the workplace as its happening". (p.5)	Credible

Hallin, K. and Danielson, E. Registered Nurses' perceptions of their work and professional development. Journal of Advanced Nursing.2008; 61(1):62-70.

Finding	Illustration from Study	Evidence
Shortcomings in the physical work environment and conflict...	"You can influence the work if you want to" OR... "It is difficult to influence the work situation other than to change the workplace or to take further education" p65	Unequivocal
Having knowledge that is seldom made use of	"I have been ignored and invisible regarding my interest for research. I have been met with the attitude that RNs should work and not carry out research" P66	Unequivocal
Attaining professional growth is no mater of course...	"Being allowed to continue to develop one's knowledge and proficiency has been a journey of pleasure"P66	Credible

Hughes, E. Nurses' perceptions of continuing professional development. Nursing Standard. 2005; 19(43):41-9.

Finding	Illustration from Study	Evidence
Significant barriers to professional development were identified...days off and family life are precious	"You get home, and you're so tired I've got a little girl and I'd like to spend time with her. The last thing I want to do is read nursing journals when I get home". (p45)	Unequivocal
nurses find reflection difficult	"I don't think they [nurses] use it [PREP] properly and I think it's because they really don't understand (post-registration education practice)...They haven't got the guidance they need to get the most out of it."(p46)	Unequivocal
cycle of frustration when learning new things	"I feel quite excited about bringing it [new ideas] to the workplace... that can quickly turn to frustration when it is not met with the same enthusiasm by your work colleagues". (p. 46)	Unequivocal
apathy and disillusionment because of the climate of the working environment...	"I think they're [nurses] too busy. There's no time...too many demands...they haven't got the time to go and start a new idea with all the paperwork...There's not enough staff [or] time to do the basics, let alone try out new ideas...sometimes there's resistance from other members of the multidisciplinary team...it fosters apathy and negativity and that's perpetuating". (p. 47)	Unequivocal

...a lack of support in implementing change as well as how managers' leadership styles played a part in the 'no-change' culture of nursing	"Our manager doesn't listen with her ears open. It's we've always done it this way, I don't see a need to change'. I suppose it's easy to get stuck in a rut but that doesn't benefit the clients..." "If I had my manager's support I'd feel much empowered, I'd feel a lot more positive and enthusiastic. I'd feel a lot happier in general...the management on the unit where I work are very negative towards nursing staff so I've had years of lack of support, lack of progression". (p.47)	Unequivocal
Experience could affect the success of the manager in fostering an environment of discussion and change... a more experienced manager illustrated her willingness to accept change	"It's all about promoting a better working environment...anybody who wants to bring anything into this unit is welcome with open arms because it's to the benefit of the clients...everyone's encouraged with new ideas...it keeps them motivated and interested...it's all about making your working environment interesting to be in". (p. 48)	Unequivocal
Here it can be seen that 75 per cent of respondents working in nursing homes and 77 per cent working in the NHS had positive perceptions of CPD...	figure 1, (p. 44)	Credible
...nurses indicated that they had a positive attitude towards professional development	figure 3 (p.45)	Credible
...nurses have difficulty in reflecting critically on their own practice and applying new learning to everyday experiences.	"not learnt anything new" and "lack of relevance to practice". (p. 44)	Credible

Jantzen, Darlaine. Learning stories: A study of positive learning experiences to create positive change. Masters Thesis:[Royal Roads University (Canada)]; 2004.

Finding	Illustration from Study	Evidence
Learning from the experience of mistakes	"I probably did make mistakes. I get it, you know I get that I didn't do it right. As long as they aren't harmful, making mistakes." "You don't learn from the times when things go normally, but I learned from the times when things go bad."(p. 101)	Unequivocal
Learning from the experience of others	"Well, it has a lot of people that work there who have many years of experience to be learning from...The nurses have been in [that specialty area] for a long time....that makes it a learning environment." (p. 102)	Unequivocal
Learning from stories	"You give concrete examples...those case scenarios always seem to hit home for nurses...even if it is just in a conversation. 'This is what happened here.' I think there are a lot of valuable things that we learn from what's happened". (p104)	Unequivocal
Learning and life experience	Adult learners bring significant life and work experience to learning or educative experiences. Robin, Ann and Amelia all stressed the importance of their own life experience being recognized and acknowledged by educators and nursing leadership. Their stories were punctuated with an occasional, "I am an adult!" These participants contrasted this acknowledgement with experiences in clinical education and workplace situations where they have been made to feel like children. (p.105)	Credible

Leonard, D. J. Factors perceived to facilitate and impede learning in the workplace. J Nurs Staff Dev. March-April 1994; 10(2):81-6.

Finding	Illustration from Study	Evidence
Support for education	"I think the greatest facilitator is probably our nursing administration here...that supports continuing education so greatly".(p. 83) "The Vice-president believes the 12-member staff development department is an 'investment, a system for accomplishing the goals of the nursing department". "He sees education as 'career growth and moves staff toward critical thinking, logic and problem solving activities".	Unequivocal
Education availability	In conjunction with support for nursing education by administration is education availability..."to recognize excellence in all areas of nursing practice and to promote the advancement of professional nursing".p 83	Unequivocal
Small groups in classrooms	If I don't get to hear what other peoples' thoughts are...then I don't get a chance to judge myself. (p. 83)	Credible
Informal learning	Instructors she said must possess "...ability to sell, persuade, negotiate, relate to head nurses; it's an important a skill for a staff development person as being able to stand up and teach in a classroom". (p. 84)	Credible
Teaching by the expert	...where the instructor was teaching12-lead electrocardiogram interpretation in the assessment of cardiac emergencies. After the class the learners wrote that this was their most significant learning experience in the last 6 months. Another said the instructor helped me 'think' (p. 84)	Credible
First- line manager	"...the head nurses could be the greatest facilitators of education because they need to support it and allow them time... the greatest hindrance is the same thing, the lack of it". (p. 85)	Unequivocal

McCormack B & Slater P. An evaluation of the role of the clinical education facilitator. Journal of Clinical Nursing.2006; 15:135-144.

Finding	Illustration from Study	Evidence
142. 'The role of the CEF'	"One of the main reasons for establishment (of the role) was we wanted a co-ordinated approach as to how nurse training and development was managed by the hospital, and there was a need to know who was trained for such a requirement and also for statuary regulations. Not only was there the need to have the records but also provide the training… "(Nurse Education Coordinator/1:1 interview/ lines 10–15)(p141)	Unequivocal
fairly clear understanding of the CEF role	"From the practical side she sorts out the Mandatory Training, the new starts, the upgrades of people, she's involved in the standardization of job descriptions and job roles. Strategically then she looks at what training the actual staff were looking for and she's involved in the (a particular specialist practice course)…"p141	Unequivocal

mentorship systems	"…especially for new nurses coming in, we feel we need someone other than someone on the ward to speak to if we have a problem. She has helped us as new nurses to settle in very easily to the ward, she's introduced us to the ward and told us of our expectations and helped with our progression during our supernumerary period, which is three months". (on-the-spot interview/D grade/lines 19–25)P141	Unequivocal

Rossi, Linda R. How nurses gain clinical expertise through informal learning in the workplace. Dissertation [Ann Arbor]: Columbia University Teachers College; 1995.

Finding	Illustration from Study	Evidence
Learning the organization through trial and error alone	The institution was sometimes seemed as helpful in promoting trial and error learning. Theresa described the need to change units saying, "I need to grow". She decided to leave her "home base unit" and attempt a six-month stint in ICU. The organization supported her experiment" prioritizing to hold her old job in case things did not work out. As Theresa explained (p194): "Six months is not a long time. It might be hell and it might not. But when you come back – if that's the way it works out - you have more of an appreciation of where you left. Your eyes are opened rather than working eighteen, twenty years on the same unit...you've grown." (030-21-22) (p 194)	Credible
Learning about the Job(p127) Trial & Error(p129)	Not surprisingly all twenty-three study subjects reported using trial and error – some more than others- to improve their on-the-job learning. (p129) "[At first] I was so intent on them knowing exactly what I we doing ...I wanted to tell them everything I was going to do. And I really didn't give them a chance to ask questions or anything. But now I... You can sort of get a feel for them... so I figure I'll just tell them the basics, skip over the details...and just listen. I mean you have to listen to them...otherwise you just can't get started. They have to tell you their story". (p129)	Credible
Learning the job through role modeling with supervisors	"Well I think [she] is an exception. Because...I mean she still works in the clinical area. She's not afraid to go to 8C and work 2C and work in the ER. And I'm sure if we needed her on 6B she'd come... she's not afraid to do that."(p. 149)	Unequivocal
Learning the job through role modeling from peers	"I looked up to her because she was so knowledgeable and I respected and admired the way she took care of people...she was a great role model". (019-06) (p. 150)	Unequivocal

Learning the job through mentoring from supervisors	"She sensed my interest and took me under her wing...In fact she gave me responsibility, and gave me some confidence too. I remember very vividly when she asked me to go along. They were picking up twins and I was the third set of hands. As we got there one of the twins was very, very sick and the other one wasn't, And she said 'Ruth, you take care of this one that is not so ill.' And I was still in training. And here she is with the other experienced nurse caring for the other one. And she just said, 'If you have any problems I know you'll come and get me'...which did wonders for my ego...my morale. And she was right. When I had a question I would come and say, 'Karen, this is what's going on' She would share her knowledge...so I can really say that, yes...she was my mentor". (037-02-03)(p. 167)	Unequivocal
Learning the job through committees and task forces	"We get consults from the experts on skin care. We all participate on committees for certain things...like we have a skin care committee and we have two people up there right know who are skin care committee people. Wed use their input...you've got somebody for everything and all [the committees] are instituted as necessary. 9029-14)"(p. 171)	Unequivocal

Swallow, V. M. Chalmers, H. Miller, J. Piercy, C. Sen, B. Accredited work-based learning (AWBL) for new nursing roles: nurses' experiences of two pilot schemes. Journal of Clinical Nursing.2001; 10:820-821.

Finding	Illustration from Study	Evidence
Comparison of AWBL with prior learning was a recurrent theme in both pilots	It was "an individual learning pathway not a generic way of learning" which made the learning outcomes very personal.(p. 821) "but once I went through the process I thought that was the best way to do it". "... a learning process... we all did it slightly differently, that is probably what is good about it".	Credible
...integrated well with practice	"...could do it at work and maybe on days off, so the stresses weren't built up at work as much as if you had to take time out [to attend a course]".(p.821) "... there was work involved in action plans, objectives and essays but it was easier because it was in your mind all the time, whereas if you have an assignment to do about something that you are not actually doing [at work], it is harder".	Unequivocal
The impact on professional development was important. Indeed, the practice-focused nature of the facilitated learning enabled nurses to recognize and value their own ability to lead change	"...something I wouldn't have done without AWBL, I wouldn't have had the confidence to do it". (p. 821)	Unequivocal

Appendix VII: Barriers and facilitators to nurses' learning

Barrier or facilitator to learning: the following factors were identified as contributors that facilitate or hinder the nurses learning experience.
Managers/Leadership/Administration: A close link between education and management to enable the provision of resources, education, support and professional development activities, can result in a better working environment and empower nurses.
Resources: Staffing/Budget/Work Schedule/Time: Material resources, time and/or financial support for learning, in and out of the workplace, need to be provided to support nurses' learning.
Learning and Education: Integrating working with formal and informal learning strategies, along with access to experts, educators and education support, facilitates learning and professional development.
Peers/Colleagues/ Seniors/Expert Nurses: Nurses value and learn from colleagues' clinical experience, knowledge, support, role modelling and enthusiasm.
Workplace Environment/Culture: The physical environment, work organization and staff interactions support diverse opportunities for nurses to learn in the workplace. However, it is equally important to have support and respect from the organization, demonstrated through time in and out of the workplace for thinking, growing, learning and raising the level of professionalism.
Mentors and Preceptors: Mentors and preceptors can recognise your capabilities and support learning in the workplace.
Accountability/Critical and Reflective Thinking: Nurses' accountability is a journey; nurses are accountable for their own learning and need to be *willing t*o take on learning opportunities, however, they also need to work in systems that support and encourage their learning and education, as this in turn develops reflective and critical thinking.
Patients' Stories: Retelling what has happened, conveying the centrality of practice is valuable to nurses' learning.