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Healthcare professionals' perspectives on enrolled nurses, practical nurses and other second-level nursing roles: a systematic review and thematic synthesis

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Abstract

Background: Significant workforce shortages and economic pressures have led to the expanded scope and reintroduction of new roles for second-level nurses in many Organisation for Economic Co-operation and Development countries. Given this, there is a need to understand the emic and etic perspectives of second-level nurses, to ensure collaborative teamwork and safe patient care.

Objective: This review aimed to systematically identify, appraise, and synthesise qualitative research evidence on healthcare professionals' perspectives on second-level nursing roles in the healthcare workforce. These findings inform recommendations that would influence the development and implementation of these roles in healthcare organisations.

Design: A systematic review and thematic synthesis of qualitative research was conducted. Six databases were systematically searched and forward and backwards searching completed. Included studies focused on healthcare professionals' perspectives (including views of second-level nurses themselves) on second-level nursing roles. All included articles were from Organisation for Economic Co-operation and Development countries. The Critical Appraisal Skills Programme checklist for qualitative research was used to assess the evidence quality. The results section of each included article was coded and descriptive themes were developed. An interpretative and iterative process led to the final analytic themes.

Findings: Twenty-six qualitative studies were identified from five countries over 26 years. Four analytic themes were identified: undifferentiated role; efficient but limited; subordinated task-doers; and broadening scope and strengthened identity. The synthesis demonstrated dichotomies wherein some second-level nursing roles were devalued, and others had increasing scope and responsibility. Role and boundary confusion was evident and had not decreased over time. Hierarchies in nursing practice underlined the split between critical thinking and hands-on approaches to care which, in some cases, debased the second-level nursing role because of its association with practical hands-on care.

Conclusions: The analytic themes in this synthesis suggest that second-level nurses have faced the same issues over decades with little change.

Perceptions of second-level nursing roles are primarily influenced by meso (organisational level) factors and micro (individual, behavioural) factors.

The synthesis concludes that a cultural shift in valuing the hands-on care provided by second-level nursing is necessary, along with systems-level shift that clarifies the role of second-level nursing within healthcare teams to enhance collaborative practice. Further research should attend to macro-level influences on perceptions of second-level nurses, the work they do, and how this is valued or institutionally embedded.

Tweetable abstract: Healthcare professionals' perspectives on second-level nursing roles: a systematic review and thematic synthesis

Contribution of the Paper

What is already known about the topic?

- Second-level nursing roles have developed over time with varying remit and responsibilities within and between countries.
- Role confusion, negative role perception and concerns about relationships between first and second-level nursing have been foregrounded in research.
- To ensure optimum patient care, there is a need to understand how these roles are perceived by second-level nurses themselves and by the healthcare professionals who work with them.

What this paper adds

- This review provides a novel synthesis of healthcare professionals' perspectives on second-level nursing roles demonstrating dichotomies in second-level nursing wherein some roles are limited and devalued and others have increasing scope and responsibility causing confusion and ambiguity in practice.
- Despite decades of these roles in practice, similar issues are reported across time and between some countries in terms of the role and scope of second-level nursing, which should inform current nursing workforce implementation.
- This review adds to understanding about how hierarchies in nursing roles remain split by mind/body, critical thinking/care approaches underlining how hands-on care provided by second-level nursing can be devalued.

Keywords: meta-synthesis; nurses by role; nursing role; practical nurses; scope of nursing practice; systematic review.

1. Background

Nursing shortages, economic pressures and the impact of an ageing population in many countries across the world (World Health Organisation, 2013) has led to an evolution of the healthcare workforce with skill mix and new roles adapted to meet changing needs (Public Health England, 2017). In some countries, this development has led to an increase of second-level nursing roles and a decrease in the number of first-level Registered Nurses (RN) (Aiken et al., 2014). Second-level nurses, such as the Licenced Practical Nurse (LPN) or Registered Practical Nurses (RPN) in Canada and the USA, and the Enrolled Nurse (EN) in Australia and New Zealand typically have a remit to look after patients in a stable or non-severe condition (Harris and McGillis Hall, 2012) and work on lower-level tasks than the registered nurses who supervise them. Whilst scope of practice for second-level nurses varies between countries, overall differences include that the second level nurse does not work without registered nurse supervision, does not take care of critical patients and needs additional certifications to administer medication. Their work typically involves 'doing' skills and might include patient observations, help with basic care or supporting rehabilitation. The other primary difference from the registered nurse is educational preparation. Second-level nurses take shorter diploma or certificate level courses (ranging between one and two years) whereas registered nurses may take up to three-year degree programmes with an additional focus on theoretical or critical

skills. However, in recent years, in some countries such as Australia and Canada, second-level nurses have been offered an enhanced scope of practice (Cusack et al., 2015) (Jacob et al., 2013) and their education has increased with lengthened diploma courses (Dahlke and Baumbusch, 2015) (Jacob et al., 2016). The developments have been reported to cause some problems in distinguishing between first and second-level nursing roles (Jacob et al., 2013) and have influenced care and patient outcomes (Havaei et al., 2019) (Kusi-Appiah et al., 2018).

In the UK, Project 2000: A New Preparation for Practice report (United Kingdom Central Council for Nursing, 1986) led to the end of training for its second-level nursing role – the State Enrolled Nurse (EN). As the role was removed from practice, nursing education in the UK moved into universities and nursing became an all graduate degree-based profession. Registered Nurses were supported in practice by healthcare support workers (HCSWs). However, in 2015, a review entitled ‘The Shape of Caring’ identified a problematic skills and knowledge gap between the unregulated HCSWs and first-level registered nurses. Resultantly, a new nursing associate (NA) role was introduced in England (Willis, 2015). The nursing associate role, unlike the old enrolled nurse second-level role, was also designed to enable clear progression pathways from nursing associate to registered nurse status (Nursing and Midwifery Council, 2020) (Health Education England, 2020). With the advent of this new role, and ongoing changes in healthcare workforce, coupled with the context of increased multi-morbidity and an ageing population globally (Divo et al., 2014), relooking at perceptions of

second-level nursing is timely.

Although second-level nursing roles have been in place in different countries and different forms for decades, previous studies and reviews have identified a lack of literature on this role, especially given the impact of altered scopes (McKenna et al., 2019, Harris and McGillis Hall, 2012, Kusi-Appiah et al., 2018, Jacob et al., 2013). Research has tended to focus on individual and organisational contexts for second-level nursing rather than understanding how broader factors such as policy or legislation at a national level or international models of the role might influence perceptions of second-level nurses and the work that they do.

To date, there has been no qualitative thematic synthesis conducted on the international evidence looking at how second-level nursing functions from perspectives of healthcare professionals, including second-level nurses themselves. The implementation of the new Nursing Associate role in England provides the rationale and impetus to review how second-level roles are perceived in order to highlight common issues and foreground models of good practice.

The primary aim of this review was to systematically identify, appraise, and synthesise the qualitative research evidence concerning healthcare professionals' perspectives on second-level nursing roles in the healthcare workforce. The review question was: What are healthcare professionals' perspectives on second-level nursing roles in the health care workforce?

2. Methods

The reporting of this qualitative synthesis follows the Enhancing Transparency in Reporting the Synthesis of Qualitative Research (ENTREQ) guidelines (Tong et al., 2012). The findings of primary research studies were synthesised using methods proposed by (Thomas and Harden, 2008). The rationale for this synthesis methodology was two-fold. First, there are second-level nursing roles in different countries and across a broad timeframe requiring an approach that can synthesise what has been found to date to help develop new understanding of role perceptions. Second, with the advent of new second-level nursing roles, such as that of the nursing associate in England, a 'transparent' method was required that could most directly 'inform practice' (Thomas and Harden, 2008).

2.1 Search strategy

A comprehensive electronic search of articles published in English with no date limiter was conducted across six databases (Cumulative Index of Nursing and Allied Health Literature (CINAHL), Health Management Information Consortium, MEDLINE, EMCare, EMBASE, Ovid Nursing) in September 2019 by one researcher [author 2] to seek all available studies. In collaboration with the wider research team, a search strategy was developed for CINAHL then adapted as required for the other databases. These databases were used as they were most relevant to the topic of interest and had a medical, nursing, social science, psychology or allied health care professional focus. Following the Population, Exposure, Outcome (PEO) tool, the search combined terms relating to second-level nurses (exposure) and broad-based experience-related terms (outcome) (Bettany-Saltikov, 2012). As

population and exposure overlapped, population-related terms were not added to the search but articles were assessed by hand to identify articles on healthcare professionals' views. Both exposure and outcome categories included medical subject headings (MeSH) and keywords using truncation (*) within the title or abstract fields. Boolean terms "OR" and "AND" were used to combine searches first within and then between the categories. Forward searching (via the database Scopus) and backward searching of the reference lists of all included articles were also conducted. Reference lists of relevant systematic or literature reviews were also reviewed. The searches were uploaded and stored using Endnote version 9 (Clarivate Analytics). Duplicates were removed and the remaining articles transferred to RAYYAN QCRI (Ouzzani et al., 2016) a web-based app used for systematic reviews to enable multiple reviewers to screen articles. Further duplicate articles were removed by [author 2]. The search filter entered in CINAHL Complete has been provided as supplemental material (supplemental material Table 3).

2.2 Inclusion and exclusion criteria

The full inclusion and exclusion criteria are outlined in Textboxes 1 and 2. Included studies focused on healthcare professionals' perspectives (including views of second-level nurses themselves) on second-level nursing roles. To allow for comparability between roles, studies were only included English language articles from Organisation for Economic Co-operation and Development (OECD) countries.

Text box 1. Inclusion criteria

Inclusion criteria:

- Studies exploring as a primary research question or objective healthcare professionals' perspectives on second-level nursing roles OR studies where primary evidence from healthcare professionals foregrounds their perspectives on second-level nursing roles (including second-level nurses' perspectives on their roles).
- Primary research studies which employ qualitative methods (pure or mixed methods) of data collection and analysis e.g., interviews, focus groups, open-ended surveys with direct quotes from participants, published in peer-reviewed journals.
- Studies which explore health care professionals' experiences of second-level nurses in the healthcare workforce in OECD countries.
- English language studies

Text box 2. Exclusion criteria

Exclusion criteria:

- Studies that do not include (or separately report) registered health care professionals' views
- Studies of the views of unregulated healthcare workers or perspectives about their roles.
- Studies that do not focus on a research question or participant perspectives directly about the second-level nursing role itself.
- Studies only about students becoming second-level nurses or about second-level nursing education content/delivery.
- Studies which exclusively use quantitative methods of data collection and analysis.
- Book reviews, opinion pieces/commentaries, theses and dissertations, literature reviews, non-peer-reviewed journal articles, letters, conference abstracts. Qualitative studies with no direct quotes from participants.
- Research studies from non-OECD countries and those not published in the English language

2.3 Study selection methods

Titles and abstracts of all the remaining articles were screened against the inclusion criteria by two independent reviewers [author 1 and 2]. The full-texts of all articles that appeared to meet the inclusion criteria were then obtained and independently assessed by two of the six team members for eligibility [authors 1, 2, 3, 4, 5, 6]. Any disagreements were resolved by discussion and/or a third team member was asked to review the article.

2.4 Quality appraisal

All eligible articles were independently quality appraised using the Critical Appraisal Skills Programme (CASP) criteria for qualitative research by two reviewers from the team (CASP, 2018). In line with other qualitative syntheses, a score of seven out of ten on the CASP ten-point checklist (where a 'yes' answer is given one point) was assessed as to be 'reasonable quality' (Lawrence et al., 2012) (p.345). It was ensured that each of the descriptive themes was supported by at least two reasonable quality articles (Lucas et al.,

2019). The appraisal process found that twelve articles lacked rigour in data analysis and/or the findings lacked detail or clarity. Only eight of the 29 articles provided information about the relationship between researchers and participants and eleven studies reported a methodological or theoretical position. Only four articles, however, scored less than seven out of 10 (Hoodless and Bourke, 2009, Kenny, 1993, Mackenzie, 1997, Robinson, 1998). All 29 articles were included in the final synthesis.

2.5 Data extraction

Text from the included studies labelled as 'results' or 'findings' was extracted electronically and imported to Nvivo 12 (QR International) by [authors 1 and 2]. Where electronic extraction was not possible, articles were coded by hand and relevant quotations also imported by hand. Study characteristics from each article were extracted into tabular form by [author 3] and this was reviewed and checked by [author 1] (see table 1).

2.6 Thematic synthesis

The data were synthesised using the steps outlined by Thomas and Harden (2008). First, line-by-line coding of the results section of each paper was conducted. This process was conducted at first by hand by [authors 1, 2 and 3] to agree to initial codes on a sample of studies then the remaining articles were coded in Nvivo line by line [author 1]. Second, descriptive themes were developed by [author 1] by staying close to the themes in the primary studies and inductively and iteratively grouping codes. Descriptive themes were shared with other team members [authors 2, 3, 4] to ensure the approach was

consistent. Finally, [author 1] devised analytical themes to move beyond the findings of individual studies and generate a higher level of conceptual understanding. This process was once again reviewed by the wider team to ensure rigour. Ethical approval and informed consent not required for this systematic review of existing published qualitative research.

3. Results

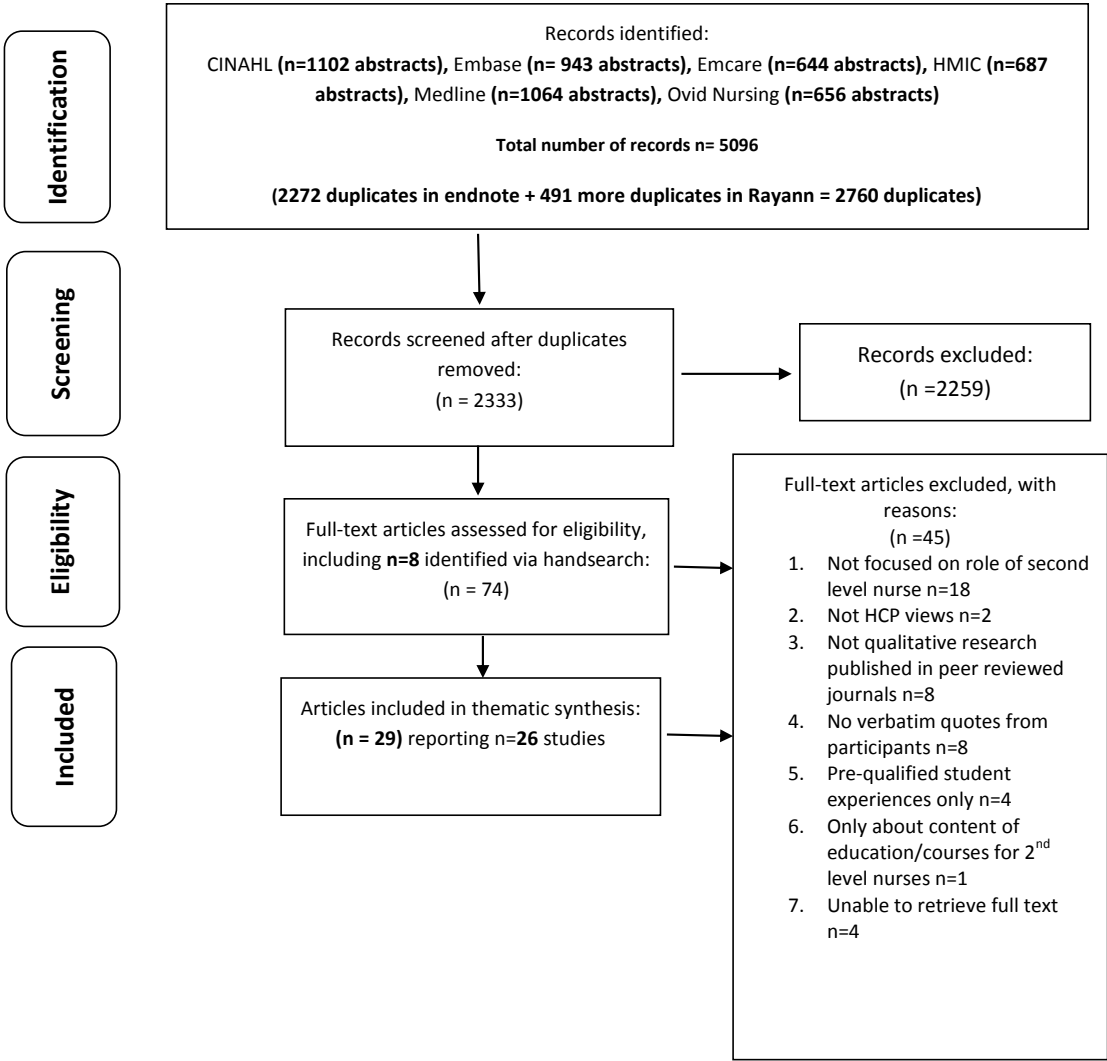


Figure 1. The outcome of study selection: PRISMA flow diagram

The search yielded 2333 unique records. Based on a review of titles and abstracts from the database search, and an additional forward and backward

hand search of titles/abstracts retrieving n=8 articles, 74 records were selected for full-text screening, resulting in n=29 articles that met all the inclusion criteria and which reported on n=26 separate studies. This process is presented in the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flowchart (Figure 1). Twenty-two of the 26 studies employed qualitative methods using either interviews or focus groups with second-level nurses themselves (n=393) or other healthcare professionals (n=313). Two of the interview studies did not break down the numbers within their sample into second-level nurses and other healthcare professionals but spoke to n=47 participants in total. The other n=4 studies reported free-text survey responses from n=1614 second-level nurses and n=526 other healthcare professionals. Table 1 reports on the characteristics of qualitative components of all the studies. Studies were conducted in five countries: Australia (n=11), Canada (n=9), United Kingdom (n=2), United States (n=2), Finland (n=2) and articles were published over 26 years from 1993 to 2019. These studies were based in different parts of healthcare: n=3 acute, n=3 older adults/nursing home, n=1 urban/metropolitan hospital, n=1 rehabilitation, n=4 rural, n=1 small community, n=1 medical/surgical, n=1 'local hospital', and n=11 across a variety of settings. Aims and objectives of the studies included: understanding how second-level nurses provide care n=3; exploring collaboration and communication issues n=3; understanding roles in practice n=7; investigating scope of practice n=7 and boundaries between first and second-level nursing n=2; understanding conversion to first-level nursing n=2 and broader issues around education and training n=2.

4. Findings

Four analytic themes relating to views on second-level nursing roles were identified: Undifferentiated role; Efficient but limited; Subordinated task-doers; Broadening scope and strengthened identity. These were underpinned by nine descriptive themes (see table 2). As with other qualitative thematic synthesis (Cox et al., 2017), quotations from participants in the primary studies are used to illustrate each theme and provide sub-titles for the descriptive themes. These quotations drawback to the words of the participants from the primary studies to ensure that healthcare professionals' words were not lost in constructing the higher-level analytic themes (Dheensa et al., 2013). Quotations were reviewed by the research team to ensure they were representative of each theme.

4.1 Undifferentiated role

This analytical theme focuses on the lack of clear role boundaries between first and second-level nursing. Poor role differentiation was evident in day to day interactions, in organisational structures as well as at the broader level of second-level nursing education and regulation.

4.1.1 Ambiguity between 1st and 2nd level nursing roles: 'hard to spot the difference'

Thirteen articles reported that the distinction between 1st and 2nd level nursing roles was ambiguous (Kenny and Duckett, 2005, McKenna et al., 2019, MacKinnon et al., 2018, Melrose et al., 2012, Mueller et al., 2018, Nankervis et al., 2008, Pryor, 2007, Robinson, 1998, White et al., 2008, Whittingham, 2012, Gibson and Heartfield, 2005, Dahlke and Baumbusch, 2015, Jacob et

al., 2016). Ambiguity between first and second-level nursing roles was particularly evident when nursing roles were analysed by the tasks they undertook. In a study conducted in nursing homes in the USA, a Director of Nursing explained that first and second-level nurses were, 'pretty much [...] tit for tat in what they do' (Mueller, 2018, p.562). Role ambiguity had increased due to the changing scope of second level nursing roles (see theme 4.4) (Dahlke and Baumbusch, 2015, Jacob et al., 2016, Whittingham, 2012) and because of enhanced second-level nursing skills: 'So, in terms of skills and scope of practice they have changed quite a lot, they're a lot more similar...and sometimes it is hard to spot the difference' (RTO2) (Jacob et al., 2016) (p.172).

4.1.2 Varying practices and unclear identity: 'What is an LPN?'

Ten articles reported that healthcare professionals – including registered nurses and doctors – lacked understanding of second-level nursing roles (Dahlke and Baumbusch, 2015, Eagar et al., 2010, Gibson and Heartfield, 2005, Pryor, 2007, Moore et al., 2017, Jacob et al., 2016, Lavander et al., 2017, McKenna et al., 2019, Whittingham, 2012, Kenny and Duckett, 2005). As one participant in an Australian study by McKenna (2019) explained, 'I don't think that registered nurses, as a collective, value the role the enrolled nurse plays in the health profession. I don't think they understand the enrolled nurse's role very well' (F2.10) (p.82). Jacob (2016) reported that registered nurses were not educated about the 'increased skills and knowledge of diploma ENs' in Australia (p.173) and Lavander et al. (2017) reported the same issue in a Finnish context. Variation in the skill level of second-level

nurses also contributed to confusion about the role (Lavander et al., 2017, McKenna et al., 2019, Jacob et al., 2016) as one participant explained: 'they have an enrolled nurse come in and she's either not medication endorsed, she's medication endorsed without IV, or she's got a diploma and there are constrictions around that (F2.11)' (McKenna et al., 2019, p.82). Whittingham (2012) shared the views of one second-level nurse who explained how they had to, 'educate everyone' about what they 'could and could not do' (LPN) (p.1165).

4.2 Efficient but limited

This analytical theme examines how second-level nursing roles are perceived as restricted in scope and have limited career progression options. From an organisational and policy context, their increasing use is driven by a utility and cost-efficiency agenda.

4.2.1. Roles are limited: 'restrictions' on practice

Thirteen articles reported on organisational restrictions placed on second-level nursing roles and the impact this had on second-level nurses' perceptions of the work they did and other healthcare professionals' perceptions of them. Despite second-level nurses taking additional courses and being assessed on their competency to 'perform a task or skill' (Leon et al., 2019) (p.163), organisational regulations controlled whether or not that skill could be put into practice (Gibson and Heartfield, 2005, Jacob et al., 2016, Lankshear et al., 2016, McKenna et al., 2019, Mueller et al., 2018). Studies also reported variations in restrictions across different clinical areas of

the same organisation (McKenna et al., 2019, Milson-Hawke and Higgins, 2004, Whittingham, 2012). Managers could further compound the limits placed on the work of second-level nurses (Leon et al., 2019, White et al., 2008, Lankshear et al., 2016). As one participant in the study by McKenna (2019) outlined, policies were sometimes conflicting between those of the regulator, the healthcare organisation and areas within that organisation, 'you get on the wards and there's another policy on top of that. So, when you're going between wards, it's very difficult to know what your policies are (F2.02) (p.83)'.

Second-level nurses reported 'frustration' with the varying remit of their role (Eagar et al., 2010, Gibson and Heartfield, 2005, Lavander et al., 2017, Leon et al., 2019, MacLeod et al., 2019, White et al., 2008). As one second-level nurse in the study by MacLeod (2019) expressed, their 'autonomy' was limited and they were 'barely allowed to speak to patients without the RN's involvement' (p.14) highlighting their limited authority in practice. Resultantly, these nurses had to constantly re-evaluate whether they were permitted to do the work (Milson-Hawke and Higgins, 2004) and could end up working below their expertise level (Schluter et al., 2011).

4.2.2 Barriers to development: 'only gets you so far'

Six articles discussed the barriers to career development for second-level nursing roles and how it was not possible to 'climb the ladder'. This was a persistent issue over time, from studies conducted in the 1990s in the UK through to studies conducted in the 2010s from Australia and Canada.

Whereas first-level nurses had opportunities to develop into 'management or education', second-level nurses could not (Jacob et al., 2016, Janzen et al., 2013, Kenny, 1993) putting a ceiling on their ability to progress: 'You reach a certain point where that piece of paper only gets you so far as an LPN' (Janzen et al., 2013) (p.169). The lack of a standardised pathway to help with retention was observed (Leon et al., 2019, McKenna et al., 2019) with the only option being to convert to registered nurse status (Mackenzie, 1997, McKenna et al., 2019). As a participant in McKenna (2019) reported, an alternative view of progression was needed with a career pathway in place for 'an EN who wants to remain an EN' (F2.11) (p.84)

4.2.3. Utility role: 'at their convenience'

The use of second-level nurses within practice varied depending on organisational requirements. Three studies from 2016 to 2019 reported that second-level nurses were employed because they were a cheaper alternative to first-level nursing (Jacob et al., 2016, Leon et al., 2019, McKenna et al., 2019). Second-level nurses felt undervalued when they were paid less than – but expected to do as much as – first-level nurses (Leon et al., 2019). Second-level nurses explained that they were being trained in new skills for cost-efficiency reasons: 'they're letting you do cannulation and IVs, and they're bringing in all these skills because we're so much cheaper than the RN' (F2.02). (McKenna, 2019, p.83).

Eight articles discussed how second-level nurses were given increased responsibility because of understaffing of registered nurses. This was

reported in studies from the UK, Canada, Australia and the USA (Gibson and Heartfield, 2005, Kenny and Duckett, 2005, McKenna et al., 2019, Mackenzie, 1997, Milson-Hawke and Higgins, 2004, Mueller et al., 2018, Nankervis et al., 2008) (MacKinnon et al., 2018). As one second-level nurse explained, their responsibilities sometimes extended into acute care when registered nurses were not available and 'gray areas' of practice meant they had to care for patients who were 'not really stable' (MacKinnon et al., 2018) (p.6). Indeed, in an aged care context, second-level nurses in the study by McKenna (2019) discussed having to make 'clinical decisions' because of a shortage of registered nurses (p.82). However, as and when staffing issues were eased, second-level nurses were reported in three studies to be put 'back in their box' (Kenny and Duckett, 2005, Nankervis et al., 2008, Mackenzie, 1997) emphasising how second-level nurses felt that they were only valuable when there were registered nurse shortages.

4.3 Subordinated task-doers

This analytic theme defines second-level nursing as different from first-level nursing in terms of being focused on task-based, hands-on care rather than critical thinking skills. In a hierarchical health workforce, with critical thinking given elevated status over caring labour, second-level nurses could feel a resultant sense of low status.

4.3.1 Lines of care: the 'hands-on' knowledge

Nine studies reported that one boundary distinguishing the second-level nursing role from the registered nurse role was that the first-level nurse was the supervisor and decision-maker, both monitoring and enabling the second-

level nurse to work within scope (Dahlke and Baumbusch, 2015, Gibson and Heartfield, 2005, Mackenzie, 1997, MacKinnon et al., 2018, McKenna et al., 2019, Milson-Hawke and Higgins, 2004, Moore et al., 2017, Mueller et al., 2018 Pryor, 2007). Although second-level nurses played a part in some aspects of care, registered nurses had broader responsibility (White et al., 2008, McKenna et al., 2019). Second-level nursing was also analysed to be more focused on doing hands-on, task-based work and had less focus on 'thinking' (Jacob et al., 2016, Mueller et al., 2018). Indeed, as one nurse educator explained, second-level nurses, 'just beaver away at whatever task you set them. They don't tend to agitate as much because they're not thinking through things as much ...' (Jacob, 2016, p.173). Second-level nurses had varied perceptions as to these aspects of their role; some felt their work was task-driven to the extent it was 'mundane' as they were 'just doing the same thing all the time' (Hoodless and Bourke, 2009) (p.436). However, other second-level nurses stated that they felt they were better at providing patient care and had a different skillset to offer than registered nurses (Nankervis et al., 2008).

4.3.2: Low status: 'not a real nurse'

Several studies across the UK, Finnish, Australian and Canadian contexts reported that second-level nurses felt undervalued (Kenny and Duckett, 2005, Leon et al., 2019, Nankervis et al., 2008, Paasivaara et al., 2003, Lavander et al., 2017, Heartfield and Gibson, 2005). Second-level nurses perceived that colleagues thought they lacked intelligence (Heartfield and Gibson, 2005, Lankshear et al., 2016, Mackenzie, 1997) and should stay passive and quiet

(Passivaara 2003). As one licenced practical nurse participant explained, they felt their views on patients were not respected or listened to: 'I reported repeatedly to the nurse that the patient's status is getting worse, still nothing was done; it was as if my voice is inaudible, my assessment and me as an LPN are worth nothing' (Huynh et al., 2011, p.6) thus limiting their voice within teams.

Second-level nurses taking a conversion course to become a registered nurse expressed that second-level nursing was 'looked down upon' (Janzen et al., 2013, Melrose et al., 2012) (p.167) and that they were not viewed as 'real nurses' (Janzen et al., 2013) (p.165). In the 1997 UK study, Mackenzie analysed that low status of second-level nurses was reinforced by senior colleagues' behaviours thus furthering a sense of disempowerment. Thirteen years later this was also underlined in the Australian study by Eagar (2010) who reported that second-level nurses, 'felt that they were treated "like idiots" and glorified "wards-men", meaning the perceived lowest level of the untrained health care workforce' (p.91).

4.4: Broadening scope and strengthened identity

The final analytic theme considers how the broadened scope for second-level nursing due to changed legislation, along with organisational respect and collaborative teamwork, created positive perceptions of the role. Despite this, the broadened scope was not always felt to be acknowledged, was not always wanted and sometimes threatened the registered nurse position.

4.4.1: An expanded scope: 'I can be useful'

Expanded scope for second-level nursing came from new policy and regulation. Regulatory changes in Canada in 2003 allowed licenced practical nurses to broaden their remit to a wider range of practice areas (their role had previously been limited to long term care) and allowed older licenced practical nurses to update their skills. Medication endorsement was a common feature of second-level nurses' expanded scope in both Canadian and Australian studies and this had developed over time. Hoodless and Bourke (2009) found that this endorsement led to increased satisfaction at work for second-level nurses as they were in a 'more direct role' and were able to provide 'more holistic care' (p.435-6). Jacob et al. (2016) reported that the medication endorsement was believed to increase the employability of second-level nurses and McKenna et al. (2019) found it to be a positive addition to second-level nursing. However, Mackinnon (2018) reported that not all second-level nurses were 'comfortable' (p.7) with the expanded scope, especially older nurses, and McKenna (2019), Nankervis (2008) and Oelke (2008) found that it had increased workloads, with second-level nurses needing to keep up with their other responsibilities too. Hoodless and Bourke (2009) gave the example of one participant who found that the 'direct care' they provided 'was compromised by having to do medications' (p.436). Furthermore, four studies reported that the expanded scope of practice for second-level nurses had also altered the hierarchical divisions within nursing and that some registered nurses did not accept the changed role or saw it as threatening to their own position (Hoodless and Bourke, 2009, Jacob et al., 2016, Whittingham, 2012, Lavander et al., 2017).

4.4.2: Respect and identity: 'they have great faith in me'

Studies across different decades reported improved status and opportunities for second-level nurses (Gibson and Heartfield, 2005, Heartfield and Gibson, 2005, Whittingham, 2012). Second-level nurses were often experienced and that experience was used in teaching and supporting new registered nurses (Gibson and Heartfield, 2005, Heartfield and Gibson, 2005, McKenna et al., 2019). Collaborative working helped second-level nurses feel like a team member rather than just a particular level of nursing staff (Heartfield and Gibson, 2005, Huynh et al., 2011, Moore et al., 2017, MacKinnon et al., 2018, Schluter et al., 2011):

I feel I've got more of a partner, rather than a hierarchal situation where I'm the boss and you're not, I was always saying, "Hey, how are you doing, what do you need, and how can I help you?" (RN) (MacKinnon et al., 2018) (p.5)

Indeed, good relationships built between registered nurses and second-level nursing helped second-level nurses work to scope (Gibson and Heartfield, 2005, Moore et al., 2017) and being trusted in their work helped second-level nurses to feel a stronger sense of professional identity (Huynh et al., 2011, Melrose et al., 2012).

Table 2: Themes identified across the articles

Analytic themes	Descriptive themes	Identified in the following articles
Undifferentiated role	Ambiguity between 1 st and 2 nd level nursing roles: ' <i>hard to spot the difference</i> ' (Jacob et al., 2016)	13 articles: (Gibson and Heartfield, 2005, Kenny and Duckett, 2005, Pryor, 2007, Nankervis et al., 2008, White et al., 2008, Melrose et al., 2012, Whittingham, 2012, Dahlke and Baumbusch, 2015, Jacob et al., 2016, MacLeod et al., 2019, Mueller et al., 2018, McKenna et al., 2019, Robinson, 1998)
	Varying practices and unclear identity: ' <i>What's an LPN?</i> ' (Janzen et al., 2013)	10 articles: (Gibson and Heartfield, 2005, Pryor, 2007, Eagar et al., 2010, Whittingham, 2012, Dahlke and Baumbusch, 2015, Jacob et al., 2016, Moore et al., 2019, McKenna et al., 2019, Kenny and Duckett, 2005, Lavander et al., 2017)

Efficient but limited	Roles are limited: <i>'restrictions'</i> on practice (Lavander et al., 2017)	13 articles: (Leon et al., 2019, Gibson and Heartfield, 2005, Jacob et al., 2016, Lankshear et al., 2016, Mueller et al., 2018, McKenna et al., 2019, Milson-Hawke and Higgins, 2004, Whittingham, 2012, White et al., 2008, Eagar et al., 2010, MacLeod et al., 2019, Schluter et al., 2011, Lavander et al., 2017)
	Barriers to development: <i>'only gets you so far'</i> (Janzen et al., 2013)	6 articles: (Jacob et al., 2016, Janzen et al., 2013, Kenny, 1993, Leon et al., 2019, McKenna et al., 2019, Mackenzie, 1997)
	Utility role: <i>'at their convenience'</i> (Mackenzie, 1997)	9 articles: (Gibson and Heartfield, 2005, Kenny and Duckett, 2005, Leon et al. 2019, McKenna et al., 2019, Mackenzie, 1997, Milson-Hawke and Higgins, 2004, Mueller et al., 2018, Nankervis et al., 2008, MacKinnon et al., 2018)
Subordinated task-doers	Lines of care: <i>'the hands-on'</i> knowledge (Nankervis et al., 2008)	14 articles: (Mackenzie, 1997, Milson-Hawke and Higgins, 2004, Gibson and Heartfield, 2005, Dahlke and Baumbusch, 2015, Moore et al., 2017, MacKinnon et al., 2018, Mueller et al., 2018, McKenna et al., 2019, Pryor, 2007, White et al., 2008, Jacob et al., 2016, Kenny and Duckett, 2005, Hoodless and Bourke, 2009, Nankervis et al., 2008)
	Low status: <i>'not a real nurse'</i> (Janzen et al., 2013)	12 articles: (Kenny and Duckett, 2005, Nankervis et al., 2008, Leon et al., 2019, Heartfield and Gibson, 2005, Lankshear et al., 2016, Mackenzie, 1997, Melrose et al., 2012, Janzen et al., 2013, Eagar et al., 2010, Lavander et al., 2017, Huynh et al., 2011, Paasivaara et al., 2003)
Broadening scope and strengthened identity	An expanded scope: <i>'I can be useful'</i> (Hoodless and Bourke, 2009)	8 articles: (Hoodless and Bourke, 2009, Jacob et al., 2016, McKenna et al., 2019, Whittingham, 2012, MacKinnon et al., 2018, Nankervis et al., 2008, Oelke et al., 2008, Lavander et al., 2017)
	Respect and identity: <i>'they have great faith in me'</i> (Gibson and Heartfield, 2005)	8 articles: (Gibson and Heartfield, 2005, Whittingham, 2012, McKenna et al., 2019, Huynh et al., 2011, Schluter et al., 2011, Moore et al., 2017, MacKinnon et al., 2018, Melrose et al., 2012)

5. Discussion

This review sought to synthesise perspectives on second-level nursing roles from the standpoint of nurses themselves and the healthcare professionals who work with them. Four analytic themes from twenty-six studies synthesised in this review suggest that second-level nursing roles are perceived to provide hands-on care to meet patient needs and support registered nurses; they also fulfil a function within the healthcare workforce to provide additional nursing support in the context of staffing shortages.

In recent decades, second-level nursing roles were analysed to have changed due to expanded scope and enhanced qualifications which had provided some second-level nurses with a level of respect that they had previously lacked. However, several challenges have persisted over time including poor differentiation from first-level nursing; dichotomies of practice between some second-level nurses restricted in scope and others working beyond their scope due to staff shortages and, overall, a sense that second-level nurses remain poorly understood in terms of their contribution to nursing as a profession.

In this synthesis, different influences shaped perspectives on second-level nursing. A useful framework to understand these influences is macro-, meso- and micro- analysis. This analysis has been used in a range of healthcare research studies including analysis of scope of practice within nursing (Smith et al., 2019), policy implementation (Caldwell and Mays, 2012) and complex interventions (Ong et al., 2014).

In this synthesis, micro (individual, behavioural factors) and meso (organisational and group-level factors) dominated professional perspectives of second-level nurses and the work that they do. Macro-factors – legislative or regulatory influences – and their influence on perceptions of second-level nurses were less frequently discussed across the primary studies. When macro-factors were referenced it often related to conflict with meso-level organisation policies, which defined how second-level nurses were allowed to

work and confusion at a micro-level about the remit of their role.

At the meso-level of group interactions within organisations, the enhanced scope of practice for second-level nursing had some perceived benefits within organisations but it also created ambiguity between nursing divisions. This is arguably compounded by organisations not clarifying the role of second-level nurses, reinforcing findings of a previous review (Kusi-Appiah et al., 2018). Indeed, in the analytic theme 'efficient but limited', studies identified that different organisational policies limited what second-level nurses could do, even if they had the required training and skills or enhanced scope had been mandated by regulatory bodies. In some cases, organisational needs required that second-level nurses worked beyond their scope to fill registered nurse vacancies but they were 'put back in their box' when the staffing shortages eased. Previous research confirms that increasing numbers of second-level nurses now work in a variety of settings, including acute care, because of workforce shortages (Moore et al., 2019). The fact that increased educational preparation and enhanced scope at a legislative level appears not to have improved views of second-level nurses as valuable apart from to address staff shortages requires further investigation.

At a micro-level, when nurses analysed their roles by the tasks they undertook, the ambiguity between nursing levels was heightened. Previous research has identified that defining roles by tasks 'delimits the value of nurses in the health care team' (Jacob et al., 2013) (p.161). Individuals had very different perceptions of the relative benefit to second-level nursing of having enhanced scope. Some second-level nurses saw it as increasing their

workload, underlining the findings of a previous review (Jacob et al., 2013). This synthesis identified that even if there is a change at a macro- or meso-level to develop roles within the workforce, individual attitudes, experiences and motivations at the micro-level impact how the development is viewed. Indeed, barriers to the career development of second-level nurses have been consistently identified in research and this was confirmed in the analytic theme 'Efficient but limited'. However, not all second-level nurses had ambitions to become registered nurses and enjoyed their role in 'hands-on care', thus identifying the importance of valuing individual trajectories rather than presuming linear progression is fitting for all.

Relational factors between individual nurses at the micro-level also influenced perceptions of second-level nursing roles. Conflict between registered nurses and second-level nurses affected the ability to collaborate. The need for collaborative models of care and an improvement of these relationships has been highlighted in a review of first and second-level nurses working in acute care (Moore et al., 2019). Previous research on the scope of practice for nurse practitioners identified that roles were most effective when colleagues were supportive and understanding of each other's roles (Smith, McNeil et al. 2019). Indeed, in the analytic theme 'Broadening scope and strengthened identity', positive working relationships were enabled when second-level nurses were valued by colleagues. Collaboration has been shown to improve outcomes for patients as well as benefit nurses themselves (Moore et al., 2019).

The question of what it means to be a nursing professional, and how the concepts of care and professionalism relate, to is also of significance to this synthesis. The hierarchical relationship between first and second-level nursing roles reflects a similar hierarchical construction within nursing between academic critical thinking and hands-on care, which has been historically undervalued and viewed as women's work (Clayton-Hathway et al., 2020). In this synthesis, studies reported that second-level nurses sought validation in the conversion to first-level nursing. In this move up the hierarchy, the work of the second-level nurse was often denigrated as second-level nurses were assessed to become a 'real nurse' in this conversion process (Janzen et al., 2013) (p.165). This synthesis confirms that second-level nursing with its more hands-on emphasis may be perceived as a challenge to the development of the graduate professional nurse identity with its advanced skills and critical thinking capability.

Mackenzie (1997) analysed that part of the reason that second-level nurses were evaluated to be 'subordinated task doers' was because 'experiential knowledge' was not evaluated to be 'legitimate knowledge' (p.369). The meaning of knowledge within nursing has been discussed in previous analyses of the profession. As Holmes et al. (2008) argue, nursing has adopted dominant biomedical evidence and 'colonial' knowledge hierarchies, arguably subsuming other forms of knowledge. Indeed, the influence of racism needs consideration concerning hierarchical constructions within nursing – for example, different treatment of Black Asian and Minority Ethnic (BAME) nurses and issues with their career advancement compared to their

white peers (Brathwaite, 2018). The studies in this review did not tend to address these systemic issues.

5.1 Limitations

One limitation of this synthesis may be the breadth and diversity of experiences reported within the studies synthesised. The studies in this review reported on different roles in different countries, over a broad timeframe and different perspectives were included from those in management positions to second-level nurses themselves working across a range of settings. Despite this, there are commonalities and consistent themes across the included studies. Furthermore, this review suggests that second-level nursing roles have faced similar challenges for more than twenty-five years, perhaps due to the common context of the development of nursing within the countries. However, different uses and views of second-level nursing roles may be found beyond the OECD countries included in this review and from studies reported in other languages than English and this is a further limitation of this synthesis.

Several studies included in this synthesis lacked theoretical approaches or used general, descriptive qualitative approaches. Future studies in this area could benefit from identifying and acknowledging a theoretical position and methodological approach to the research. Previous research has also identified the need for more participation from second-level nurses in research (Moore et al., 2019).

The process of the selection and synthesis in a thematic synthesis is interpretative. Whilst other reviewers were all involved in the interpretative process, the initial analysis was conducted by one author (Author 1) and given the detailed involvement in developing analytic themes this may have guided the initial synthesis process.

5.2 Implications for practice/policy

This review and synthesis provide the opportunity to reflect and avoid reproducing the weaknesses of historical initiatives within the Nursing workforce regarding the introduction of second-level nursing. Allowing variation in the implementation of second-level nursing roles in different clinical settings can lead to either the restriction or extension of practice (beyond the scope of the role). This creates confusion about the role and its contribution and undermines its value to the healthcare workforce.

Consistency in implementation is vital to success, as is clarity in terms of the scope of the role and its relationship to other roles within the multi-disciplinary team, in particular the role of first-level nurses. These aspects combine to raise awareness and understanding of the role, which healthcare providers can harness to publicise and celebrate the commitment of second-level nurses to the quality of care provision. Given the ongoing concerns expressed about the potential devaluing of the role, continued reference to second-level nursing as a means of progression to first-level nursing only serves to undermine and denigrate the value of the second-level nurse as a career choice and should be avoided within communications messaging.

5.3 Research implications

This synthesis has demonstrated that healthcare professionals largely view second-level nursing roles through micro or meso lenses. Macro-level understandings of the role were less explicitly discussed. An analysis of legislation, regulation and policy around second-level nursing roles would be beneficial to understand how roles are constructed and communicated at a macro-level. Future analysis should also consider the influence of gender roles and racism on perceptions of second-level nursing. Research considering the views of – and use of – second-level nurses should also expand to look beyond the few countries included in this review.

6. Conclusions

The analytical themes defined in this qualitative synthesis demonstrate contrasting views of second-level nursing roles. On the one hand, these roles have been strengthened by expanding scope and have developed over time but conversely, they remain restricted by organisational policies, are viewed as a mechanism for cost-effectively dealing with registered nurse shortages and remain devalued by their association with care rather than cognition. Role clarity can help to align expectations and assist in collaborative working to improve patient care. The development of second-level nursing roles has, in some cases, led to role blurring with first-level nursing rather than defining the value and purpose of second-level nursing in its own right. Healthcare hierarchies that associate caring with low pay and low aspiration continue to undermine the work of these nurses and their important contribution to patient care. This synthesis raises questions about how macro-factors might influence perspectives about second-level roles and if a clear purpose and

direction for these roles could be better constructed beyond a cost-efficiency and utility agenda.

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Conflict of interest

The authors declare no competing interests that might be perceived as influencing the results of this paper.

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Ethical approval

As this is a systematic review of published primary studies no ethical approval was required. However, the ethical approval in the included empirical qualitative studies was assessed.

Source paper and country	Population/ role (n)	Reported qualitative aims	Data collection and theoretical/methodological approach	Data analysis
(Dahlke and Baumbusch, 2015) Canada	Registered Nurses n=18 Licensed Practical Nurses n=3 (Care Assistants n=3)	To explain how Registered Nurses are providing care for hospitalized older adults.	Semi-structured interviews and observations in 2 hospital sites	Thematic Analysis
(Eagar et al., 2010) Australia	30 Enrolled Nurses and Registered Nurses	Part of a broader study exploring communication in healthcare environments. This article explores the relationships in and between scope of practice and communication amongst a team of nurses in Metropolitan hospitals in Sydney (general wards)	Semi-structured focus group interviews x 6 (Enrolled Nurses and Registered Nurses in separate groups) across 3 sites	'Constant comparison method' akin to "Grounded research" (Glasser & Strauss, 1967; Polit & Beck, 2006)
(Heartfield and Gibson, 2005) (Gibson and Heartfield, 2005) Australia	Enrolled Nurses n=48	Part of a broader study revising role, function and educational preparation of Enrolled Nurses in Australia. To identify the role of the enrolled nurse on entry to practice, specifically focused on teamwork and recognition (variety of settings and areas). As above but specifically focused on Scope of Practice	Semi-structured telephone interviews using critical incident technique	'Content and thematic techniques' (Miles and Huberman, 1994)
(Hoodless and Bourke, 2009) Australia	Enrolled Nurses (medication endorsed) n=4	Part of a mixed-methods study comparing the levels of job satisfaction among Enrolled Nurses with medication practice with colleagues who were not medication endorsed in a rural health service.	Semi-structured interviews	'Analysed thematically' by identifying common and important responses to key issues
(Huynh et al., 2011) Canada	Licensed Practical Nurses n=267	To address the organisational and interpersonal determinants of Interprofessional collaborations between Registered Nurses and Licensed Practical Nurses in Quebec, as well as the professional factors affecting IPC.	Questionnaire (open and closed format)	Qualitative analysis based on template codes developed by the team and from a literature review
(Jacob et al., 2016) Australia	Nursing course coordinators (Registered Nurses) n= 8	To examine course coordinators' opinions regarding graduate roles and career expectations for different levels of nurses on graduation in Victoria, Australia	Semi-Structured Interviews	Thematic Analysis (Ezzy, 2002)
(Janzen et al., 2013) (Melrose et al., 2012) Canada	Licensed Practical Nurses n=27	To explore the perceptions of Licensed Practical Nurses in a post-Licensed Practical Nurse-Registered Nurse bridging program related to the label 'real nurse', part of a wider program exploring transitions that Licensed Practical Nurses experience when becoming Registered Nurses.	Four face to face focus groups, in different cities. Framed by a constructivist theoretical framework and sociological theory of professionalization (Hass and Shaffir).	Thematic (Denzin and Lincoln, 1994)
(Kenny, 1993) United Kingdom	Enrolled nurses n=11	To explore Enrolled Nurses perceptions of their position and to understand the psychology of care reflected in their thinking.	Informal interactive and flexible interview with participants viewed as 'co-researchers'. Feminist influenced.	Discourse analysis (Potter and Wetherall, 1989)
(Kenny and Duckett, 2005) Australia	Enrolled nurses n=38	To explore the reasons why rural Enrolled Nurses have chosen to convert to the first level of the nursing register.	Online focus group	Thematic analysis (Kitzinger and Barbour 1999)
(Lankshear et al., 2016) Canada	Registered Nurses n=47	To determine the factors contributing to Practical Nurse role confusion and impact on nursing team collaboration (mixed methods). Various regions and settings in Ontario.	10 focus groups with nursing team leaders	Content analysis (Vaismoradi, Turnunen and Bondas, 2013)

(Lavander et al., 2017) Finland	Registered Nurses (RNs, Midwives and radiographers) n = 154 Practical Nurses (PNs, children's nurses and ambulance staff) n = 55 Nurse Managers /assistant nurse managers n =51	To determine the challenges and barriers related to the development of the division of labour between practical nurses and registered nurses. Acute Care in Finnish hospitals. Part of a larger study.	Questionnaire: Open-ended questions	Inductive content analysis Elo and Kyngas (2008)
(Leon et al., 2019) Australia	Enrolled nurses n=34 and stakeholders (nursing staff/managers) n=44	To understand the investment education and training have on the retention of enrolled nurses in the health service (as part of sequential mixed methods study).	Eleven semi-structured focus groups across 5 sites	Thematic Analysis
(Mackenzie, 1997) United Kingdom	Enrolled Nurses n=19	To clarify the discrete contribution Enrolled nurses make to nursing by investigating their subjective experiences.	1-2 hour interviews using a reflective conversational technique; Feminist approach	Not described
(MacKinnon et al., 2018) Canada	Registered nurses n=10 Licensed practical nurses n=10	To identify and describe experiences and concerns of Registered nurses and Licensed Practical Nurses about changing work relationships and scopes of practice; two small community hospitals	Individual interviews as well as observations and shadowing using institutional ethnographic enquiry (focus on discourse in social settings)	Institutional ethnography 'keeping the institution in view' in the analysis (McCoy, 2006)
(MacLeod et al., 2019) Canada	Licensed Practical Nurses n=1206 (total survey responses of those who perceived working to or below scope)	Examine what factors predict rural and remote Licensed Practical Nurses perceptions of working below their legislated scope of practice and explore perceptions of working below scope. Cross-sectional survey.	Open-ended question from survey.	Analysed 'descriptively'/ reviewed for common themes
(McKenna et al., 2019) Australia	Enrolled nurses n=102	To explore understandings of Enrolled Nurses scope of practice to inform the revision of practice standards in Australia	14 focus groups and 7 individual interviews	Thematic Analysis (DeSantis and Ugarriza, 2000)
(Milson-Hawke and Higgins, 2004) Australia	Enrolled nurses n=7	To explore the nature of Enrolled Nurse practise within an acute hospital setting and the processes that Enrolled Nurses used to guide their practice.	Six interviews and one observation. Grounded theory (Stern, 1990)	Grounded Theory (Corbin and Strauss, 1998)
(Moore et al., 2017) Canada	Registered nurses n=6 Licensed practical nurses n=4 (5 from emergency dept; 3 from surgical; 2 from medical)	To examine the factors that influenced collaboration among Registered Nurses and Registered Practical Nurses s at one acute hospital in Canada to understand and improve practice. Sequential mixed methods design.	Interviews	Thematic Analysis
(Mueller et al., 2018) United States	Directors of nursing (DONS) n=44	To describe Director Of Nursing perspectives on the interchangeability of nursing levels in nursing homes and factors that contribute to interchangeability (part of a larger study, conducted in two states).	1:1 interviews in-person or telephone	Secondary analysis of one theme from a larger dataset
(Nankervis et al., 2008) Australia	Division 1 and 2 nurses, n=17	To identify, within a rural context, the potential to enhance the scope of practice of division two registered nurse. Two Rural health facilities.	Five focus groups Qualitative descriptive design seeking answers to question direct relevance to policy and practice (Sandelowski, 2000)	Thematic. (Attride-stirling, 2001)

(Oelke et al., 2008) (White et al., 2008) Canada	Registered Nurses n = 85 Licenced Practical Nurses n = 31 (Registered Psychiatric nurses n:11 Other/unit managers n:40)	To understand the barriers and facilitators to working to full scope of practice. To elicit perceptions of what constitutes full scope of practice and the extent to which they are able to work to full scope. Mixed methods study. Across 14 varied units in 3 regions.	Face to face semi Structured Interviews guided by the Nursing Role Effectiveness Model.	Thematic Analysis (Morse and Richards, 2002)
(Paasivaara et al., 2003) Finland	Practical Nurses n=2	To describe and analyse the work of practical nurses in elder care through the experiences and life cycles of two practical nurses with a long working experience	Repeated 1:1 biographical narrative interviews	Inductive content analysis (Catanzaro, 1988)
(Pryor, 2007) Australia	Registered Nurses n=35 Enrolled nurse n=18	To investigate how nurses contribute to inpatient rehabilitation.	Formal interviews and observations 5 settings Grounded theory (Glaser, 1978, 2001; Strauss and Corbin, 1998)	Grounded theory
(Robinson, 1998) USA	Registered Nurses n = 321 Licenced Practical Nurses n = 86	To provide data on the future workforce and educational needs of Idaho's nursing workforce.	Survey with free text response	Not specified
(Schluter et al., 2011) Australia	Registered Nurses n=16 Enrolled Nurses n=4	To understand how medical and surgical nurses from two Australian hospitals conceive and enact their scope of practice in response to available grade ad skill mix of nurses and other healthcare professionals.	Semi-structured interviews with critical incident technique (Flanagan, 1954) Constructivist methodology (Lincoln and Guba, 1998)	Inductive thematic analysis then comparative analysis (Polit and Beck, 2004)
(Whittingham, 2012) Canada	Licenced Practical Nurses n = 31 (Others: Licenced Practical Nurse educators n = 9 Regulators n = 11 Nursing workforce researchers n = 2 Leaders from practice and government n = 8 Student Licenced Practical Nurses: n= 35)	To learn from other countries where practitioners play an intermediate nursing role and to answer: how are Licenced Practical Nurses educated and what is it like to be a Licenced Practical Nurse and why is it that way? One rural and two urban areas in Canada.	Interviews and focus groups – flexible approach (Jones and Rattray, 2010) Constructivist qualitative approach	Qualitative analysis (Creswell, 2007) Thematic analysis (Lathlean, 2010)

Table 1: Summary of characteristics of qualitative elements of included primary studies

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