# Transition support for new graduate nurses to rural and remote practice: A scoping review

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## ABSTRACT

*Background:* New graduate nurses undertaking transition to practice encounter enormous challenges in their first year, and this is expounded in rural and remote locations. In rural and remote settings where geographical isolation and inadequate resources impact health care delivery, there is a perceived shortage of support systems to assist new graduate nurses to transition smoothly, with reported negative effects for all staff and on recruitment and retention.
*Objectives:* To investigate what transition support was reported for new graduate nurses to function effectively in rural and remote settings.
*Design:* A study protocol was developed using principles for scoping reviews that have been developed over the past fifteen years.
*Data sources:* CINAHL, Medline, Proquest, Embase, Informit, PubMed, and Science Direct were systematically searched according to a predetermined search strategy.
*Review methods:* Search terms included New Graduate AND Rural OR Remote AND Education. Studies were selected according to an inclusion and exclusion criteria. Three reviewers were involved in independent screening of articles. The degree of agreement for an article to be included was based on a Kappa score calculation for inter-rater reliability.
*Results:* Of the 662 articles searched, 13 met the inclusion criteria and their findings synthesised to form this review. Three overarching themes (and a number of subthemes) were identified within the context of rural and remote nursing workforce development, and included: new graduates' support needs, multifaceted support strategies and recruitment and retention strategies.
*Conclusions:* Challenges faced by new graduate nurses when transitioning to practice are exacerbated in most rural and remote settings due to resourcing, lack of structured support programs, lack of training for support staff to mentor and give feedback and this impacts on recruitment and retention as well. Structured, well supported transition programs that provide flexible support are urgently required in these settings.

## 1. Introduction

Globally, there is a historic challenge in the recruitment and retention of staff in the health sector, especially among nursing workforce (WHO, 2010). In rural and remote regions these challenges are significantly more difficult compared to metropolitan areas, often due to resources disparity between rural-remote and metropolitan areas (Ashley et al., 2018; Lasala, 2017). For New Graduate Nurses (NGNs) undertaking transition in rural and remote settings, it is imperative that

efforts are made to aid them transition smoothly due to the lower levels of support available for providing health care in these locations. Although there have been some structures in place, the many problems NGNs face in the transition process in the last decade are complex and interwoven. This paper presents a scoping review of what transition support is reported in the literature for NGNs undertaking their first year of practice in rural and remote settings.

## 2. Background/literature

New graduate nurse transition to practice is an area of increasing focus in workforce management. In rural and remote settings, transition of NGNs to practice is becoming an increasingly important focus for these locations where recruitment and retention has always been difficult. However, this remains a challenge that has not been comprehensively investigated.

A certain amount of structure and resources in the implementation of graduate nurse transition programs is considered desirable (Oosterbroek et al., 2017). Mostly, NGNs can only find employment in their first year of registration within a graduate transition program (Fowler et al., 2018). However, these programs are usually run by health service staff and can lack substantial regulation, structure with variable levels of support provided, and have anecdotally been reported to be even more problematic in rural and remote locations.

In rural and remote settings, where geographical isolation and inadequate resources further impact healthcare delivery and nursing workforce development (MacLeod et al., 2017; WHO, 2010), there is a perceived lack of adequate preparation and support for transitioning NGNs and others (Oosterbroek et al., 2017). The general lack of professional and educational support has been reported to negatively impact on rural and remote recruitment and retention of nurses (Keahey, 2008; Oosterbroek et al., 2017). In NGNs this has been reported to create strain on their socioemotional health and professional development as confident and competent Registered Nurses (RNs) (Lea and Cruickshank, 2017). There have been a number of recent reviews on the experiences of NGNs in transition, but mostly these have been representative of metro areas (for example see Ke et al., 2017; Walker et al., 2017). Recognising the unique characteristics and challenges of rural and remote nursing, this review focuses on discovering what support is provided for NGNs undertaking transition to practice in rural and remote settings and presents recommendations to meet the needs of NGNs in these settings.

## 3. Methods

A five-step scoping review process guided this review as outlined by Arksey and O'Malley (2005). This method was chosen to allow the researchers to collate, synthesise and report results of papers published with varying aims and scopes that existed about the transition support and resources available to assist NGNs transitioning to practice in rural and remote settings. According to Arksey and O'Malley (2005), the process of the review includes identification of the research question, literature search to identify relevant studies, study selection, charting the data and collating, summarizing and reporting the results. The optional sixth step of community consultation was not applied to this study. The overarching question guiding this review is 'How are NGNs supported to transition to function effectively in rural and remote settings?'. Three specific objectives have been raised to answer the question: 1. To ascertain the reported support needs of NGNs in rural and remote settings 2. Examine available supportive resources for rural and remote NGNs 3. Develop recommendations for supporting rural and remote NGNs. The study design, conception and management were undertaken by R1.

### 3.1. Selection process

Seven health databases including CINAHL, Medline, ProQuest, Embase, Informit, PubMed, and Science Direct were searched. The search strategy included keywords such as Graduate nurse OR New Graduate Nurse AND Rural OR Remote AND Education OR Learning environments OR Transition Program OR Graduate Program OR transition to practice OR Recruitment OR Retention OR Nursing Workforce OR Support. Two separate reviewers (R2, R3) conducted the searches separately. Titles were compared for duplicates. After duplicates were

removed, all reviewers met to discuss the outcome of the searches. Where applicable, changes to the search approaches were applied. Title and abstract of the remaining articles were screened based on the inclusion and exclusion criteria by all reviewers separately who then met to discuss the outcomes. The following inclusion and exclusion criteria were set for selecting articles:

*Inclusion*:

- peer-reviewed or government published document
- published after 2007
- in English
- any research methodology
- primary research studies
- meta-analysis studies
- previous literature reviews
- studies about graduate nurses or similarly classified nurses who are employed in rural or remote settings (as identified by RRMA zones or comparable) in their first year of practice, or support programs that are run for these nurses in rural and remote settings

*Exclusion*:

- studies that do not fit the above
- discussion or editorials or news items
- studies/reports that are about nurses who have immigrated, or left the nursing workforce previously and are being reintroduced or transitioned from another country

### 3.2. Data extraction and charting

The methodological quality of the included articles was not judged. The Rural, Remote and Metropolitan Areas (RRMA) classification (Department of Health, 2008) was used to target studies that fell within published definitions of rural and remote area according to population. Data was compiled into a spreadsheet with headings including: Author, Year, Study location, Aim, Population, Sample size, Design, Findings, Strengths, Limitations and Link to the scoping study (as presented in Table 1).

### 3.3. Collating, summarizing and reporting the results

Two reviewers condensed the common findings into themes using a thematic analysis approach (R1, R2). Reviewers undertook initial analysis separately then met to undertake consensus building and refinement of themes. Once agreed, themes were reviewed by third reviewer (R3).

## 4. Results

The initial searches yielded 662 results. After removing duplicates, 386 articles proceeded for screening. Thirty-six articles proceeded to full text screening. After the full text screening, 13 articles met the inclusion criteria and their findings were synthesised to form this review. Reviewer agreement to include articles was substantial with a Kappa score of 0.68 (substantial judged between 0.61 and 0.80) (McHugh, 2012). See Fig. 1 for details of the selection procedure.

Seven out 13 of the included articles were from Australia, four were from USA and two came from Canada (see Table 1). Eight studies used qualitative methodologies, one report used mixed methods, two were policy evaluation studies and two were reports on transition programs.

The literature was reviewed with the three objectives in mind. Three overarching themes were identified within the context of rural and remote nursing workforce development, with a number of sub themes (see Fig. 2).

**Table 1**
Data summary for included papers.

| Authors, year, country | Aim (A), design (D) | Population (P), sample size (SS) | Findings | Strengths (S) limitations (L) | Link to study |
|---|---|---|---|---|---|
| Baldwin et al., 2016, United State of America (USA) | A: To decrease NGNs attrition in the first year of employment through targeted communication skills development and additional mentoring D: Quality improvement program for nurse transition, mixed methods | P: NGNs enrolled in one hospital's residency program and retired nurse mentors SS: Not clearly stated | • The residency program supported development of communication skills, improved competencies and reduced NGN attrition in the first year of employment. • Retention was 37% pre-program and 100% post program. | S: Comparison of like data in like cohorts (attrition and retention), qualification of successful strategies using interviews L: Lack of clarity about which years were being compared and numbers of post intervention vs pre-intervention participants | Challenges for rural NGN retention resonates with other studies, including communication challenges and lack of mentoring opportunities. Providing mentoring support and structured transition programs can improve attrition and experiences. |
| Baumann et al., 2008, Canada | A: Evaluate perception about viability of a health human resource policy implementation in a rural setting D: Qualitative exploratory design using individual face-to-face and telephone interviews | P/SS: 21 hospital administrators and 44 nursing staff (30 RNs and 14 RPNs) from 19 different hospitals of < 100 beds in Southwest Ontario | • 3 health human resource policies identified were seen to lack 'fit' with the rural context and included: 1 Goal of 70% full-time employment difficult because it did not fit in with lifestyle needs of nurses. 2 The new graduate initiative for funding 3 months as supernumery positions to transition then to full time permanent position removes opportunities for other staff. 3 The late career initiative was a funding opportunity for hospitals to extend the work-life of nurses > 55 by giving them positions that were less taxing. This was difficult to implement due to a number of reasons including stigma, not interested in changing focus, poor proposal development, and disruption to already small work pools in rural areas. Other findings: • many hospitals did not participate in these initiatives, • inexperienced nurses found rural nursing difficult and may not stay, •nurses without rural backgrounds do not generally work in rural communities. •Insufficient orientation and retention strategies in place for new nurses in rural areas. | S: Applied an appropriate methodology for contextual application of government human resource policies. Methodology is clearly stated and results logically presented L: The study is conducted in one area of Canada therefore transferability may not apply. The study did not acknowledge the limitations. | HR policy that tries to force a one-size-fits-all approach to workforce retention and new graduate transition to rural contexts creates other issues for an equally valuable part of the workforce. Regardless, due to lack of availability of full-time employment positions and lack of skills in rural practice among new graduates, rolling out of the policy in rural areas not feasible. |
| Bennett et al., 2012, Australia | A: To explore and describe the needs of NGNs in a rural and remote setting within Australia D: Literature review | P: Articles describing support needs of new graduate registered nurses SS: Not stated | • The needs of NGNs are discussed under three topics: expectations, support and workload. • Within the Australian context, lack of structured mechanisms to address the needs of NGNs in rural and remote areas have contributed to the high attrition rate among rural and remote NGNs (84% in some areas). • Expectation conflicts, lack of support and the overwhelming workload in rural and remote practice areas are the reasons why NGNs leave the profession. • The support needs of NGNs are holistic, encompassing formal and informal practices within and outside rural and remote health facilities. | S: Close to topic area L: No replicable search strategy or clear summary of articles used. No clear understanding of process used to develop conclusions. | Validation of area of importance and lack of clarity in how to manage this issue using evidence. Clarification and summary of aspects that contribute to this complex issue such as workload, support and expectations of and held by NGNs. |

**Table 1** (*continued*)

| Authors, year, country | Aim (A), design (D) | Population (P), sample size (SS) | Findings | Strengths (S) limitations (L) | Link to study |
|---|---|---|---|---|---|
| | | | • The available support, though erratic in supply is from educators, health-service staff, preceptors and academics.<br>• **Recommendations**: a structured approach to dealing with the needs of NGNs in rural and remote settings | | |
| Bratt et al., 2014, USA | A: To compare rural and urban nurse residency programme, participants' personal and job characteristics and perceptions of decision-making, job satisfaction, job stress, nursing performance and organisational commitment over time.<br>D: A longitudinal cohort design of a quality improvement program for nurse transition | P: Urban and rural newly licensed hospital nurses<br>SS: 468 nurses (86 rural, 382 urban) | • A structured nurse residency program embedded factors that maintain nurses in their jobs including: maintenance of clinical skill competence, presence of a social support network, access to further training, and mentoring from experienced nurses.<br>• In rural settings, fitting in, having a sense of belonging, and satisfaction with the community are essential to nurses' job satisfaction and intent to stay.<br>• Comparing rural and urban nursing practice, a nurse residency program must take into consideration the unique context of practice that impacts on NGNs.<br>• Turnover rate in rural setting is as high as 60% and is related to low salaries (22% difference between rural and urban), lack of access to higher education, decreased professional development support, and the demanding rural nursing roles which NGNs are not prepared for.<br>• **Recommendations**: Needs of NGNs include more mentoring support, learning how to work in a team with others, social support from the community and structured professional development programs. | S: The methodology is clearly stated and followed. The presentation of findings and the discussion follow steps which make comprehension easy. The limitations of the study stated<br>L: Single state in USA – therefore generalisation of findings may not be possible | The research discusses some of the difficulties related to rural nurses and also reports the needs of rural graduate nurses and suggest how to meets these needs. Transition programs need to be multifaceted and related to the contextual needs of the rural and remote environment. |
| Keahey, 2008, USA | A: Evaluate the transition program for NGNs and support socialisation with their peers, value and role in the team.<br>D: Quality improvement program for nurse transition | P: NGNs working in a rural 12-bed family birth centre in Washington State that performed an average of 650 births per year<br>SS: 5 NGNs | • Report on the implementation of a flexible approach to NGN transition in rural obstetric care using an orientation program.<br>• A new program was implemented where careful recruitment for culture fit (NGNs) and program aims (staff preceptors) along with significant flexibility in process, support and resources were implemented has seen retention rates rise for NGNs from 40% at to 100% at the end of one year and 80% at two years.<br>• This change was based on a contextual understanding of contributors to staff turnover.<br>• Attrition causes pre-program implementation were identified through exit interviews and included feeling overwhelmed by their new responsibilities; inability to handle conflict with providers and lack of confidence in their ability to make critical decisions.<br>• Attrition contributors included: Assigning reluctant staff preceptors caused NGNs to | S: The arguments are well referenced and presented under sub-headings for easy understanding, each aspect of the program clearly explained<br>L: Unclear methodology of paper or aim of paper. | Validation of common challenges reported by NGNs in rural setting resulting in high rate. Trial of new approaches for a transition program which was multifaceted, based on all stakeholder needs, and included flexibility according to context is essential for success. The author's recommendations include an effective orientation which includes didactic instructions, core competencies and evaluation. The orientation should allow time for adequate theory and practice |

**Table 1** (*continued*)

| Authors, year, country | Aim (A), design (D) | Population (P), sample size (SS) | Findings | Strengths (S) limitations (L) | Link to study |
|---|---|---|---|---|---|
| | | | feel uneasy and impacted on their ability to learn;<br>• Preceptors who did not own the orientation process and therefore did not value it; a non-nurturing clinical learning environment where staff were overly critical of NGNs; standardised orientation did not allow for flexibility for unit or NGN needs.<br>• NGNs needed time to adjust to their new roles<br>• **Recommendations:** an extended organisational orientation (3 months standard orientation was inadequate); and an ongoing dialogue with preceptors and managers. | | |
| Kulig, Kilpatrick, Moffitt, & Zimmer, 2015, Canada | A: To discuss policy initiatives which address the ongoing recruitment and retention issues of RNs in rural and remote Canada<br>D: Documentary analysis (mixed methods) | P: Documents that were policy driven or informed policy from July 2012 - Aug 2013 from Canada, Australia, New Zealand, United Kingdom & USA<br>SS: 56 documents | • Rural context identified and included rural values (self-reliance and accepting of illness rather than seeking care) and blurred professional and personal boundaries which impacts on confidentiality and reduced access to health care.<br>• Rural practice themes include workforce shortages, lack of infrastructure in healthcare, lack of interest in rural practice by decision-makers.<br>Rural health most often discussed from a deficit structure rather than a strengths-based structure.<br>• Difficulty with nurse recruitment and retention most commonly occurring theme. Initiatives to address this issue related to three areas:<br>• Educational opportunities (bursaries, developing rural sites as learning environments, mentorship programs, support to receive continuing education, housing, increased clinical placements in rural sites, focused education for rural and remote healthcare),<br>• Financial incentives (multi-faceted incentive packages such as RANIP, extended scopes of practice at times related to remuneration, tuition payment in return for service and loan forgiveness programs)<br>• Enhanced infrastructure for workplaces and family support (Recruitment of NGNs, employer initiatives that enhance quality of life, and supporting interdisciplinary collaboration).<br>• **Recommendations:** Roundtable discussion of the issue is recommended | S: The process and context of the review is clear. The article explains the challenges associated with the development and implementation of policies to retain health care professionals.<br>L: The paper only discusses issues related to recruitment and retention of rural and remote nurses. | The policy response to the recruitment and retention of rural and remote registered nurses is applicable to that of rural and remote NGNs which the article acknowledges and mentions. These responses include financial initiatives, educational opportunities and infrastructure. In other words, these policy responses are key to retaining NGNs in rural areas if they are adequately implemented. |
| Lea and Cruickshank (2015a), Australia | A: To identify NGNs perceptions of and experiences in transition programs, and what should be the functional elements in the transition program | P: NGNs who had commenced a 12-month Transition to Practice Program within a rural health facility from | • Three themes identified:<br>1) Getting started at the three to four months milestone- NGNs needed support in terms of patient care practices, orientation and | S: Detailed description of all study participants which allowed a clear understanding about participants and their experiences. | The findings show unique support needs of NG enrolled in the transition to practice program and appreciate how these needs change over time. It shows that any |

**Table 1** (*continued*)

| Authors, year, country | Aim (A), design (D) | Population (P), sample size (SS) | Findings | Strengths (S) limitations (L) | Link to study |
|---|---|---|---|---|---|
| | D: An exploratory, descriptive, qualitative case study design | northern New South Wales (NSW), Australia SS: 15 | assistance with time management and prioritising of workload, help with learning clinical care routines, medication management and documentation. 2) Settling in at the six to seven months- NGNs support needs are related to making clinical decisions and judgement to recognise emergency situations, manage complicated medication routines and interpret prescriptions. 3) Just another nurse at the 11–12 months milestone. NGNs need reassurance and direction for complex clinical decision and judgement | L: The study was conducted in a small portion of Australia, using a small sample size. Generalising the results may not be possible | program aimed to provide support to GNs in a transition program should take into consideration the needs in continuum |
| Lea and Cruickshank (2015b), Australia | A: Identify experienced nurses' beliefs, perceptions and experiences of the transition support provided to NGNs that would provide safe and supportive transition in the rural and remote setting D: An exploratory, descriptive, qualitative case study design | P: Experienced rural registered nurses from 14 different sites in northern NSW SS: 16 | • Findings showed that the provision of timely on-ward support for new graduates making the transition to rural nursing practice is affected and influenced by the skill mix and staffing allocation within the rural environment. • This is related to a junior skill-mix (more junior staff members than seniors ones) in the rural setting, skill-mix is also diluted due to a higher proportion of Assistant in Nursing and Enrolled Nurses (EN). • Additionally, there is a lack of awareness by rural nurses of how to meet the on-ward support needs of new graduate nurses | S: The findings shows originality and are logically presented. Method appropriate to study aim. L: Sample is small. Unclear how data saturation was achieved. Limited to one rural context (Northern NSW). | On-going support is necessary for NGNs work within the clinical setting, issues such as staffing allocation and skill mix often hinder existing staff's ability to provide support. Staff are often unsure or unaware how to support NGNs and therefore would need to have increased capacity to enable this. |
| Lea and Cruickshank, 2017, Australia | A: To report the roles played by rural nurse managers (NMs) and rural nurse unit managers (NUMs) in supporting NGNs in a transition to practice program in a rural setting D: Longitudinal descriptive case study (NGNs at multiple time points over 1 year, and once with experienced nurses working with NGNs in rural environments) | P: NGNs and experienced rural nurses SS: 30 (15 NGNs, 15 experienced nurses) | • The findings are discussed according to each stage of the transition continuum. 1) Stage 1: 3-month milestone- NUMs visibility and disconnect; 2) Stage 2: 6-month milestone- need for acknowledgement and interaction from NMs and NUMs; 3) Stage 3: 9-month milestone- the need for feedback from NMs and NUMs. • The findings reveal that although NMs and NUMs are well positioned to provide support for NGNs, the supply of support is erratic, but are essential due to fewer nurse educators in rural settings. • NGNs rely on nurse unit managers and nurse managers for feedback, support and debriefing, provision of emotional support, advocacy, openness, encouragement and protection from organisational requests and demands. | S: The context of the research is explained and the methodology is clearly stated. L: Limited to one rural context (Northern NSW). | The findings emphasise that with all the challenges faced by NGNs communication and appropriate feedback mechanism from NMs and NUMs would contribute to a smooth transition for NGNs. This is of higher importance because of the reduced numbers nurse educators in the rural setting. |
| Mellor and Greenhill, 2014, Australia | A: To identify the nature of support provided within transition to practice programs to NGN's in rural areas and identify the implications for rural health units, the community as consumers, and the nurse education sector and nurse | P: NGNs from 14 rural hospitals across three regions in South Australia SS: 21 participants broken into 3 focus group discussions with 5, 8 and 8 members in each group respectively | • The findings are discussed under three themes: 1) Underprepared for practice (struggle to bridge theory-practice gap and included, student RN role very different to NGN role, prioritisation skills lacking, having to focus on multiple tasks and patients at once, | S: Methodology well suited to aim of research. Clear description of how data authenticity, reliability and credibility was ensured. L: Study completed in 2008–2009, not reported until 2014. The findings of the research not presented in a way that | The themes replicate the issues identified by other graduate experiences in rural and remote locations. Recommendations for what transition programs should include are made. |

**Table 1** (*continued*)

| Authors, year, country | Aim (A), design (D) | Population (P), sample size (SS) | Findings | Strengths (S) limitations (L) | Link to study |
|---|---|---|---|---|---|
| | registration authorities.<br>D: Grounded theory study | | needing to take on team leader role with no preparation, need to have a whole of health service team approach, need to develop situational awareness to be safe, and multiple other aspects of roles not practiced as a visiting student nurse)<br>2) Overwhelmed and abandoned (expectation to work autonomously early on, preceptorship/mentoring and other support promised such as orientation and feedback did not eventuate)<br>3) Need for clinical supervision (need to learn about quality and safety in clinical practice and using evidence-based practice, feeling forced to work outside of scope, needing support to practice safely when starting to practice).<br>• **Recommendations:** Three core elements of what should be in a transition program for NGNs include: leadership support; clinical supervision; and development of inter-professional relationships. | was easy to correlate to aims. Limited to one rural context that has specific characteristics (South Australia) that may limit generalisability. | |
| Nayda and Johns, 2008, Australia | A: To report the specific needs of ENs who make transition to RN roles in a rural Australian setting<br>D: Hermeneutic phenomenology | P: ENs who are transitioning to NGNs in rural Australia<br>SS: 4 | • Analysis of the participants experiences of transition revealed three themes:<br>1) Great expectation- self expectations, adjusting to the new role and others expectations (high self-expectations, higher expectations from management compared to other NGNs, and experienced difficulty with role transition especially when working in the same venue as when an EN)<br>2) Support- sink or swim – peer, managerial and medical support staff (lack of support provided due to assumed knowledge as EN, and these NGNs were given more responsibility due to this as well with little feedback or mentoring)<br>3) Jacks and Jills of all trades – coping with scope, proficiency equals specialising, positives of rural transition (rural RNs require wide knowledge and skill based which these NGNs were unprepared for regardless of their previous EN experience in rural areas, diversity in practice also meant it was difficult to become proficient as variety was more evident than repeated presentation types, unpredictable environment meant reduced control, and NGNs felt they needed experience elsewhere and with post graduate study to become specialists, while practicing in a rural area was positive due to diversity, it would also take more time to cement knowledge and skills) | S: The study shows the unique experiences of newly registered nurses who were previously enrolled nurses and the challenges they face in their work in the Australian rural setting, therefore specifying a unique cohort of NGNs. The methodology is clearly stated and used in the analysis of the data.<br>L: Limited to one rural context that has specific characteristics (South Australia) that may limit generalisability. | The support needs expressed by NGNs are constructive communication and feedback. In situation where RNs felt unsupported, they were anxious and insecure in the execution of their work. The support available are from peer, managers and medical staff, but it's irregular. Recommendations: better more structured support is needed |

**Table 1** (*continued*)

| Authors, year, country | Aim (A), design (D) | Population (P), sample size (SS) | Findings | Strengths (S) limitations (L) | Link to study |
|---|---|---|---|---|---|
| Ostini and Bonner, 2012, Australia | A: The aim of the study was to examine the experiences of NGNs who have completed a transition to practice program in a rural context<br>D: Qualitative interpretive methodology using individual semi-structured interviews as data collection method | P: NGNs working in a rural acute care facility in NSW.<br>SS: 5 | • The key findings of the research are discussed under four major themes:<br>1) Being supported (orientation, adequate supernumerary time, receiving assistance with time management, policies and procedures, access to senior staff for clinical questions, support with medications, interdisciplinary learning, debriefs, access to clinical educators, and flexibility in the transition program). Clinical nurse educators provided the training and support for NGNs. Other support came from junior staff, allied health staff, medical staff, clerical staff and from each other. In cases where support was low, new graduates felt challenged to perform their duties.<br>2) Being challenged (learning not to panic, doing things yourself, doing new things, difference in expectations between student RN and NGN, bridging theory-practice gap, gaining confidence, rotating areas and learning new things, accepting learning opportunities, short timeframe for integrating new knowledge.) NGNs encountering new tasks for the first time as challenging, this occurred more often for those who had no previous working experiences in the clinical setting. Some NGNs chose not to attempt some skills due to feelings of fear, anxiety and panic.<br>3) Reflections on being a new graduate (wanted more flexibility and choice in transition program, rotations, challenge with role ambiguity with major model of care change, want more access to structured education support, and support for overwhelming feelings of uncertainty in first few months).<br>4) Reflections on a rural graduate program (NGNs appreciated rural opportunities for employment following completion of the transition program, rural environments are small and friendly, nature of rural practice is diversity so was interesting.) | S: The methodology is clearly stated and used in the analysis of the data. Methodology well suited to aim of research.<br>L: Limited to one rural facility only (Western NSW) that may limit generalisability. | The study portrays how effective support from nursing educators and other staff can positively influence the experiences of new graduates who are enrolled in a transition to practice program. |
| Weiss, 2016, USA | A: To review the available orientation practices for newly hired nurses in a rural hospital in Colorado<br>D: Narrative qualitative methodology | P: NGNs in one regional hospital's transition program, and nursing managers<br>SS: 7 (5 NGNs, 2 nursing managers) | • This thesis examines the foundational practices of orientation for newly recruit nurses in rural Colorado.<br>• The findings of the research are discussed under the following areas: effective communication; skills and knowledge improvement through practice; developing prioritisation and organisational skills; support by staff and managers; identification of positive/negative work environment; and hospital wide orientation. | S: Clarity in defining study aims and methodology.<br>L: Limited to one rural facility only and specifically only about that orientation program that limits generalisability. Some methods chosen which remain unclear for utility (e.g. participants choosing for group or individual interviews and not identifying selves during interviews in an attempt for anonymity). Small number of nurse | **Support needs** of new nurses included: adequate orientation which emphasise on effective communication and advance skill practice.<br>**Support available** included mentors, nursing staff, directors and managers.<br>These outcomes are congruent with other studies in rural and remote NGN transition to practice programs. |

**Table 1** (*continued*)

| Authors, year, country | Aim (A), design (D) | Population (P), sample size (SS) | Findings | Strengths (S) limitations (L) | Link to study |
|---|---|---|---|---|---|
| | | | • Challenges expressed with the existing orientation program in the rural hospital were that the orientation was too short and varied depending on area in the hospital (2 days to a few months) and there was no resident nurse or a consistent mentor to take them through the orientation process.<br>• Aspects of the orientation program which new hired nurses felt unsupported included lack of effective communication with patients, physicians and mentors due to new hired nurses' personal tendencies and lack of previous experience in nursing. The new hired nurses had little opportunity to engage in advanced skill practice during orientation.<br>• **Recommendations** are made for a more structured orientation program which meets the needs of new hired nurses | managers interviewed leads to questioning representation of views. | |

### 4.1. New graduate nurses support needs

New graduate nurses' needs were related to time-in-practice and developmental milestones, specific skills that most NGNs needed to develop regardless of location and receiving the right balance of support while still being challenged in order to engage development. The support needs are grouped into the three subthemes below.

#### 4.1.1. Support needs related to time in practice

Knowing what support is needed is an essential element of workforce development. One study suggested that there were discrete stages to the transition continuum and that support needs vary at each stage (Lea and Cruickshank, 2015a) and require adequate time to develop (Keahey, 2008; Mellor and Greenhill, 2014; Nayda and Johns, 2008; Ostini and Bonner, 2012; Weiss, 2016). There is a need to supply different levels of support based on which stage graduates are in their transition continuum. This support needs related to specific timeframes included:

- 0–3 months: patient care practices, orientation and assistance with time management, clarification of unfamiliar procedures and prioritising of workload, help with learning clinical care routines, medication management and documentation.
- 4–6 months: making clinical decisions and judgements to recognise emergency situations, manage complicated medication routines, interpret prescriptions and coping with the realities of practice.
- 8 months onward: reassurance and direction for complex clinical decisions and judgements (Lea and Cruickshank, 2015a).

#### 4.1.2. Specific skills development required

There were three specific support needs NGNs needed support for; critical decision-making skills, effective communication with colleagues and patients, and developing clinical task skills. To help develop these three key skills areas, NGNs required leadership support, clinical supervision, and direction for the development of effective inter-professional relationships and connecting with the community (Baldwin et al., 2016; Lea and Cruickshank, 2015a; Mellor and Greenhill, 2014; Ostini and Bonner, 2012; Weiss, 2016).

As NGNs have reported feeling overwhelmed by new responsibilities, they were often unable to manage conflict with colleagues and also lacked confidence in critical decision making (Bennett et al., 2012; Keahey, 2008; Mellor and Greenhill, 2014; Ostini and Bonner, 2012). As a result, adequate orientation that emphasised effective communication and advanced skill practice was essential (Keahey, 2008; Lea and Cruickshank, 2015b; Weiss, 2016).

New graduate nurses needed support from staff and managers with effective communication as well as specific task skill development and included; skills and knowledge improvement through practice; medication safety; development of prioritisation and organisational skills for effective time management; identification of positive/negative work environment; and a hospital/health-service wide orientation (Baldwin et al., 2016; Lea and Cruickshank, 2015a, 2017; Nayda and Johns, 2008; Ostini and Bonner, 2012; Weiss, 2016). However, among all of these, the most challenging aspects for NGNs were a lack of effective communication with patients, physicians and mentors due to new hired nurses' personal tendencies and lack of previous experience in nursing (Weiss, 2016), hence why effective communication skill development was so prevalent in the literature.

#### 4.1.3. Being supported while being challenged

Formal or professional support is reported to aid NGNs in their career development, but support given needs to be balanced by providing challenges for the graduates, for without either, development will not be effective (Ostini and Bonner, 2012). The challenge with being able to provide support while continuing to challenge staff is often present because of a traditional lack of educational opportunities
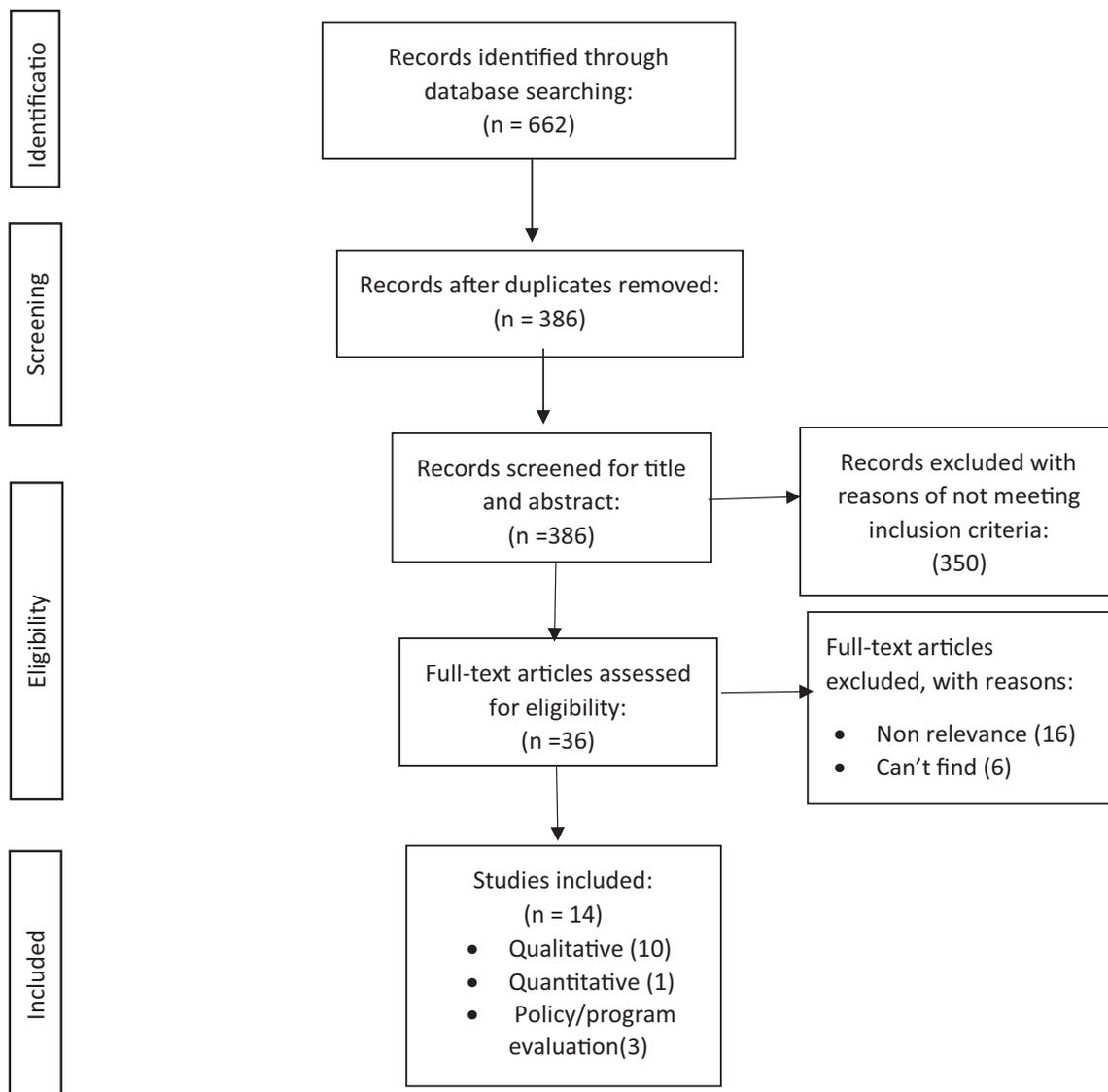
**Fig. 1.** Selection process.

and education staff within the rural and remote environment (Bratt, 2009; Keahey, 2008; Kulig et al., 2015; Lea and Cruickshank, 2015a). The lack of supported professional development is crucial toward the end of their first year of practice, especially to advance clinical practice and improve retention. Generally, in the rural setting, there are fewer mentors (Baldwin et al., 2016; Weiss, 2016), preceptors (Bennett et al., 2012; Bratt et al., 2014; Mellor and Greenhill, 2014), nurse educators (Ostini and Bonner, 2012) or senior nurses (Weiss, 2016). Support and supervision is essential to development. One study reported that many NGNs encountering new skill tasks for the first time in the clinical setting choose not to attempt the new skill because of fear, anxiety and panic therefore support and supervision was required to help them overcome these challenges and develop further (Ostini and Bonner, 2012).

In addition to mentoring, NGNs needed employers and educators to advocate for them, provide emotional support, encouragement and protection (Lea and Cruickshank, 2017) as well as reassurance and direction (Baldwin et al., 2016; Lea and Cruickshank, 2015b). Unfortunately, usually in these settings, formal or professional support is either lacking for NGNs due to limited resources and a lack of time (Lea and Cruickshank, 2015a; Nayda and Johns, 2008) or is provided erratically, often leaving NGNs with inconsistent mentoring (Bennett et al., 2012; Lea and Cruickshank, 2017; Weiss, 2016). This often leaves a gap

in what is provided or what is promised to be provided versus what support is needed.

New graduates need to be supported and challenged to be able to build experiences 'on the job'. Where support is low, NGNs struggle to perform and develop (Ostini and Bonner, 2012). It is understandable then that NGNs feel inadequately prepared for practice and have a need for clinical supervision because they lack confidence in making critical decisions (Bennett et al., 2012; Keahey, 2008; Mellor and Greenhill, 2014).

In some environments (e.g. USA), rural and remote nurses are paid lower salaries, which when combined with a lack of access to higher education and decreased professional development support to undertake demanding roles, have led to high turnover rates in these contexts (Bratt et al., 2014; Keahey, 2008). Even though salary differences are not an issue in other places (e.g. Queensland, Australia) it is a common finding that a lack of structure in support mechanisms do lead to high attrition rates in rural and remote areas for new graduate workforces (Bennett et al., 2012; Keahey, 2008; Ostini and Bonner, 2012).

### 4.2. Multifaceted support strategies

Support strategies currently available are diverse, and in most rural and remote areas include more than one strategy, however in some
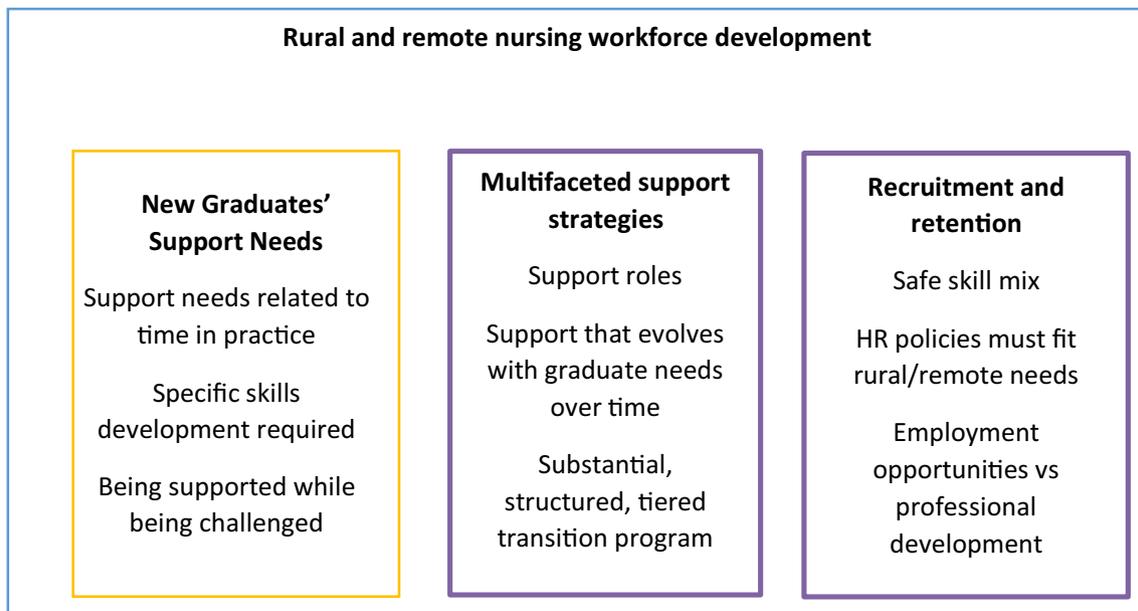
**Fig. 2.** Themes and subthemes.

locations, can be almost non-existent. Strategies for supporting newly hired nurses include rostering, allocation of workload and one-on-one support during shift as well as supernumerary time, time management, and supportive work environment. Strategies were usually discussed in terms of support roles, transition programs, or mentoring programs. The recommendations for support strategies, according to the papers reviewed are discussed in three subthemes:

*4.2.1. Support roles*

There is emerging evidence to suggest that many staff do not know how to provide support to NGNs within their roles, regardless of whether staff are in formal or informal support roles (Keahey, 2008; Lea and Cruickshank, 2015b). This issue is challenged further as rural and remote areas have a historically lower skill mix than metropolitan areas. The lower skill mix issue is problematic as in the early stages of establishing NGNs to the clinical areas a more generous staffing allocation is required to provide the needed support (Lea and Cruickshank, 2015b). Not knowing how to provide support along with a need for higher skill mix in early transition, can lead to expectation conflicts, a general lack of support which combined with the overwhelming workload in rural and remote practice areas are often the reasons why NGNs leave the profession (Bennett et al., 2012; Keahey, 2008; Mellor and Greenhill, 2014; Nayda and Johns, 2008).

Specific roles of support staff in rural and remote settings were identified as those whose roles are already best placed for overarching support (Nurse Unit Managers, Midwifery Unit Managers, Clinical Nurse Educators or senior ward nurses) (Baldwin et al., 2016; Lea and Cruickshank, 2017; Weiss, 2016). New graduate nurses reported that they rely on managers for the following support: feedback, debriefing, provision of emotional support, advocacy, openness, encouragement and protection from organisational requests and demands during the transition to rural nursing practice. Support is also accessed from the wider team. Other roles such as Enrolled Nurses (ENs) (equivalent to Licensed Practical Nurses or Licensed Vocational Nurses in the USA and Canada), Assistants In Nursing and other staff take different roles in working with NGNs supportively (Lea and Cruickshank, 2015b).

*4.2.2. Substantial, structured, tiered transition program*

For a safe transition to practice, NGNs needed to be adequately prepared and this requires a significant amount of support on entry to the workforce. Most organisations are now providing a transition

program (of some sort) to accommodate this (in the literature this is also referred to as a residency or orientation program). A substantial, structured, tiered transition program should adequately prepare NGNs, allowing enough flexibility and time for theory-practice assimilation and to deal with the challenges arising from the field of practice (Bennett et al., 2012; Bratt et al., 2014; Keahey, 2008; Mellor and Greenhill, 2014; Ostini and Bonner, 2012; Weiss, 2016). Formal mentoring programs were reported in the literature varied in how the mentoring was provided and by whom. For example, mentoring NGNs with nurses who had left the profession (retired) versus one-on-one mentoring by ward nurses (Baldwin et al., 2016), or group mentoring across areas (Weiss, 2016).

While it was identified that the overarching support for NGNs was provided by preceptors and nurse educators, it was acknowledged that in some rural and remote settings, such support is not available, leaving NGNs confused and feeling alone and at the brink of engaging unsafe clinical care practices which put the lives of patients at risk (Bratt et al., 2014). One study noted that in some rural and remote environments there were no formal programs to support NGNs in the rural and remote areas to aid in smooth transition (Weiss, 2016). For a successful transition, preceptors and nurse educators must be available and able to provide the needed education and support which will enhance safe transition.

*4.2.3. Support that evolves with graduate needs over time*

Support needs to be provided with greater consistency and meet the graduate development needs (Lea and Cruickshank, 2015b; Nayda and Johns, 2008; Weiss, 2016). Inconsistent and erratic support can create issues of confusion and adherence to scope of practice may also suffer. At every point in the transition continuum, NGNs are faced with different challenges which they need preceptors' and/or managers' help to deal with them (Lea and Cruickshank, 2015b).

Transition programs need to provide support over significant time periods, given that the support needs of NGNs will change over time, preceptors and nurse educators should be dynamic in providing support to meet the different types and level of support over approximately a nine to 11-month duration (Bratt et al., 2014; Keahey, 2008; Lea and Cruickshank, 2015a). The current standard program in some environments for NGNs is three months or less (Mellor and Greenhill, 2014; Weiss, 2016). Insufficient support limits NGNs ability to adequately perform their roles in the rural clinical settings, as the need for

independent decision-making is greater in practice environments that are more isolated. Longer support programs (over a 9–11-month duration) (Keahey, 2008) would help deal with this challenge.

The makeup of structured transition programs should include some didactic instruction, core competence in practice evaluation, and allow time for theory and practice to assimilate (Keahey, 2008). Strategies are often required to build communication skills of NGNs with team members, patients and other stakeholders. This type of strategy often requires discussion with preceptors and managers over a longer period of time to ensure transferrable skills are developed (Bratt et al., 2014; Lea and Cruickshank, 2015a).

## 5. Recruitment and retention strategies

Recruitment and retention are major challenges experienced in health care sectors in rural and remote areas. These challenges are often based on issues relating to resources deficits and a lack of structured mechanisms to address the needs of NGNs, especially in the Australian context (Bennett et al., 2012). In some USA contexts, a difference in salary level (22% lower than the urban nurse), leave the attrition rate of new graduate as high as 60% (Bratt et al., 2014). Studies have suggested a number of strategies to curb this phenomenon. These strategies are discussed under the following sub themes:

### 5.1.1. Skill mix needs to support decision making and patient care to retain graduates

Skill mix that allows for the support of safe decision-making and patient care is required to ensure that graduates feel safe and directly impacts on willingness to stay in a rural/remote location (Lea and Cruickshank, 2015b). For daily supervision and support needs, NGNs usually work with other staff at the ward level. However, lower-level skill mixes such as the shift team being made up of a NGN, an EN and a 2nd or 3rd year post qualifying nurse as the RN in charge in a setting that cares for admitted patients and emergency presentations, with a senior RN on call, makes daily supervision and support for NGNs difficult. One recommendation is that staffing allocation in times of early establishment of NGNs to the rural and remote areas should be generous is often not able to be provided (such as in the example above) (Lea and Cruickshank, 2015b), as retention of skilled workforces in rural and remote locations is difficult.

### 5.1.2. Human Resource policies must fit rural and remote needs

Human Resource recruitment policies must be fit-for-purpose, which is different to metro areas (Baumann et al., 2008; Kulig et al., 2015), however this is not often accounted for. The literature reports that the implementation of a one-fit-for-all health-related human resource policy is not possible due to the variations in the contexts within which health services are delivered and suggests that the HR policies are urban biased (Kulig et al., 2015). To promote retention in rural and remote settings, HR policies must focus on creating more educational opportunities and provide some financial incentives for NGNs while enhancing the infrastructure of the workplace to promote learning and practice (Kulig et al., 2015). In one example, it was reported that administrators of rural and remote hospitals in Canada were unable to implement the new graduate initiative, because the rural hospital is small and were unable to create full-time employments opportunities for NGNs to meet the recommended targets set out in their HR policy (Baumann et al., 2008). The lack of full-time employment positions on offer for NGNs was often due to inadequate infrastructure and limited resources as well as the potential to create problems if NGNs are promoted at the expense of existing staff (Baumann et al., 2008) which can also contribute to the high attrition rate among NGNs.

### 5.1.3. Employment opportunity versus professional development

New graduate nurses noted there were more opportunities for employment post-transition in some rural and remote settings (in Australia for example) (Ostini and Bonner, 2012), however in some locations those opportunities were often part-time (Baumann et al., 2008). Although more opportunities may exist in rural and remote settings, there is often limited capacity to develop and specialise due to fewer professional development opportunities. This is concerning as there are significant differences in professional development support between rural and remote nurses and urban nurses (Baumann et al., 2008; Bratt et al., 2014). Unfortunately, the combination of lack of access to higher education, professional development and overwhelming clinical roles, contributes to the high turnover results in rural and remote locations, with some areas in Australia as high as 84% turnover (Bennett et al., 2012). As a new practitioner, this is a difficult situation for NGNs to face, and some have to make the decision to either stay in employment with limited professional development opportunities or leave the rural area to try to find work where they can be supported to keep developing their practice and professional capabilities (Nayda and Johns, 2008). This is a conundrum facing many staff in rural and remote locations, however it is more difficult for NGNs who need early establishment of robust clinical practice development to be confident as safe and effective practitioners.

## 6. Discussion

This purpose of this review was to establish how NGNs are supported to effectively function in rural and remote settings. The findings of the review show the support needs of NGNs, the available support strategies, who provides the support and the challenges of providing support and that issues faced by NGNs are compounded in rural and remote areas (Phillips et al., 2015). For recruitment and retention efforts, recommendations for structure and content of transition programs are reported as well.

The predominant support strategy for NGNs in rural and remote areas is the transition or residency program, and this is more apparent in metropolitan environments where preceptors and nurse educators play diverse roles to support new graduate transition to practice, with other health staff providing informal support along the way (Phillips et al., 2015; Rush et al., 2013). Transition programs that are structured and of significant time with appropriate resources for individualised support show a positive return on investment in terms of savings due to reduced turnover (Klingbeil et al., 2016; Phillips et al., 2015; Regan et al., 2017; Silvestre et al., 2017).

Consistent with the findings of reviews for NGNs in the first year of practice in urban settings, the support needs of NGNs are extensive and evolve with time (Dyess, 2009; Hussein et al., 2017; Regan et al., 2017) and require a longer period to support development (Dyess, 2009; Rush et al., 2013). In the first three months for example, orientation is crucial as it is the period where NGNs are introduced to the work environment and the routine of patient care and have to reconcile previous expectations with reality (Phillips et al., 2015; Regan et al., 2017). This period requires conscious efforts to adequately deliver maximum support. This study found that orientation can be minimal due to lack of staff and time, however lack of staff to carry out transition programs has also been found in other settings and may be viewed to be just as problematic (Flinkman et al., 2008; Hussein et al., 2017; Phillips et al., 2015).

The studies in this review indicated key skills that needed to be better supported to develop within the transition program. Feeling isolated and overwhelmed is not particular to NGNs in rural and remote settings but can also occur in other areas due to chaotic workplaces (Dyess, 2009; Hofler and Thomas, 2016) and have also been linked to skill-mix as a problem as the nursing workforce demographics change (Phillips et al., 2015). Specific key skills that NGNs needed to develop in urban settings were also clinical skills, making critical decisions in

patient care and communicating effectively with patients and other clinicians (Dyess, 2009; Klingbeil et al., 2016). These skills when adequately developed will positively affect the psycho-emotional tendencies directly related to executing work duties and the possibility to stay (Flinkman et al., 2008). Studies included in this review indicated that efforts made to develop these skills must include opportunities to challenge NGNs in the clinical setting along with supporting them, as this is optimal to ensure development 'on the job'.

A reported need for NGNs to develop relationships with local nursing leadership was apparent in the review and is also present for NGNs working in other settings (Dyess, 2009; Regan et al., 2017). Having access to the right mentors and preceptors is not particular to rural and remote areas, because even in highly resourced areas, if the supporting staff are not focused on providing encouragement and the right level of support then experiences can be sub-optimal (Dyess, 2009; Hofler and Thomas, 2016; Phillips et al., 2015; Regan et al., 2017) and therefore support staff need specialised training (Murray et al., 2016; Rush et al., 2013).

## 7. Conclusions

The support needs of NGNs have been extensively documented, showing that these needs exist on a continuum and can extend beyond the time of support provided for NGNs undertaking a transition to practice program. In most cases, NGNs are supported to practice through preceptorship or mentorship with NMs and NUMs as well as educators providing support. Unfortunately, and especially in rural and remote settings support from these staff is erratic, often due to workload and skill-mix leaving NGNs confused, overwhelmed and feeling alone and at times at risk of engaging in unsafe clinical care practices which can impact on patient safety.

With the increasing ageing nursing population and the high attrition rate, it is imperative that conscious and deliberate efforts are put in place to the development and implementation of the transition programs. Transition programs should also evolve to meet the needs of NGNs in their time of practice and include opportunities to challenge NGNs to nurture professional skills.

## Declarations of interest

None to declare.

## Funding statements

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