EXPLORING THE EXPERIENCES OF THE NEW GRADUATE REGISTERED NURSE IN CARING FOR THE DETERIORATING PATIENT IN RURAL AREAS

A Thesis submitted by

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ABSTRACT

Care and management of patient deterioration is an integral part of a nurse's role. Yet, New Graduate Registered Nurses (NGRNs) often feel unprepared to care for the deteriorating patient. Whilst literature has recognised NGRNs working within metropolitan areas feel ill-equipped to care for deteriorating patients, there is paucity in the literature focused on NGRNs experiences within the rural context. Therefore, this study aimed to explore the experiences of NGRNs in caring for the deteriorating patient in rural areas. This study employed a qualitative design underpinned by a descriptive phenomenological approach. Data were collected via in-depth interviews with seven NGRN participants. Data were subjected to thematic analysis with three themes emerging from the data. The first theme *Transition to the rural team*, illuminates participants' experiences of their first encounters of patient deterioration and how the small team in rural practice influenced these experiences. The second theme, *Practice support for managing deterioration,* highlights the importance of support from experienced rural nurses, and the third theme, *The road to confidence,* reveals participants' on-going and desire for development within the context of working rurally and the provision of care for the deteriorating patient. Findings of the study highlight the challenges for NGRNs in rural inpatient health services in caring for the deteriorating patient. The findings have implications for tertiary undergraduate education and those supporting NGRNs in their transition to practice in rural areas. Enhancement of NGRNs' skills and abilities in recognition and responding to patient deterioration through both technological and personnel support has the potential to enhance patient safety within the rural healthcare environment.

CERTIFICATION OF THESIS

I, Elaine Christine Gilbody Towner, declare that the thesis entitled *Exploring the experiences of the new graduate registered nurse in caring for the deteriorating patient in rural practice environments* is not more than 40,000 words in length including quotes and exclusive of tables, figures, appendices, bibliography, references, and footnotes. The thesis contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated, this thesis is my own work.

[redacted]

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Student and supervisors' signatures of endorsement are held at the University.

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ABBREVIATIONS

ABS – Australian Bureau of Statistics

ACN – Australian College of Nursing

ACSQHC – Australian Commission for Safety and Quality in Health Care

ALS - Advanced Life Support

AHPRA – Australian Health Practitioner Regulation Agency

AIHW– Australian Institute of Health and Welfare

AIN – Assistant in Nursing

ANMAC – Australian Nursing and Midwifery Accreditation Council

ASGS - Australian Statistical Geography Standard

BTF – Between the Flags

CASP - Critical Appraisal Skills Program

CEC – Clinical Excellence Commission

ED - Emergency Department

EEN – Endorsed Enrolled Nurse

EN – Enrolled Nurse

HSM - Health Service Managers

HREC – Human Research Ethics Committee

IO - Intra-Osseous

LMA - Laryngeal Mask Airway

MMM - Modified Monash Model

MM – Monash Model

MO – Medical Officer

MPC - Multi-Purpose Centre

NMBA – Nurses and Midwives Board of Australia

NHMRC - National Health and Medical Research Council

NSQHS - National Safety and Quality Health Service Standards

NGRN – New Graduate Registered Nurse

NSW – New South Wales

NUM – Nurse Unit Manager

PRISMA - Preferred Reporting Items for Systematic Reviews and Meta-Analysis

RN/s – Registered Nurse/ Registered Nurses

RFDS - Royal Flying Doctors Service

UNE – University of New England

WHO – World Health Organization

CHAPTER 1: INTRODUCTION

1.1. Introduction

Australia has a growing population with increasing chronic conditions and increased patient acuity, yet a shortened length of inpatient hospital stays. The acuity of patient conditions and complexities in health has implications for the already broad role of registered nurses (RNs) who work rurally. The broad scope of practice and the rural environment, which is often characterised as having limited resources, can create challenges for nurses working in rural settings[1]. This is particularly true for new graduate registered nurses (NGRNs) who are often expected to be practice ready. This chapter provides background to the current study which aimed to explore the experiences of NGRNs in caring for the deteriorating patient in rural areas. The background includes three focus areas including rural nursing, new graduate nurses and care of the deteriorating patient. In addition, the chapter includes the research question and objectives that guided the study, the significance of the study and concludes with an outline of the thesis.

1.2. Background

Chronic health conditions, an aging population, increasing demand for health services and new technologies are key characteristics of contemporary health care (Schwartz, 2019). Patients admitted to inpatient facilities now have greater acuity with a shortened length of stay (Schwartz, 2019). Rural nurses must be equipped with a wide range of skills to manage patients with diverse illness, injury, or health care needs (Lea & Cruickshank, 2015). The range in scope of practice for rural nurses can be challenging, particularly considering the frequency of differing patient presentations and when medical staff are limited (Ostini & Bonner, 2012; Penz et al., 2018). As per the Nurses and Midwives Board of Australia (NMBA) statement regarding scope of practice, scope of practice is influenced by a number of factors:

> *The scope of practice of individual practitioners is influenced by the settings in which they practise. This includes the health needs of people, the level of competence and confidence of the nurse or midwife and the policy requirements*

[1] For the purpose of this study, the term 'nurses' refers to registered nurses unless otherwise stated.

of the service provider. As the nurse or midwife gains new skills and knowledge, their individual scope of practice changes (The Nurses and Midwives Board of Australia [NMBA], 2022, pp. 3).

The NMBA scope of practice statement highlights the interplay of the novice nature of new graduate nurses, the complexity of patients they will encounter and the unique challenges in rural inpatient health services. The novice nature of the NGRN on entry to practice brings a limited scope of practice. This limited scope of practice may be challenged in the rural environment with the need to be extended quickly.

1.2.1. Rural nursing

The Australian Institute of Health and Welfare (AIHW, 2019b) define rural and remote environments as all areas outside of Australia's major cities[2]. Approximately one third of Australia's population reside in rural areas. Rural communities have poorer health outcomes compared with metropolitan communities with the burden of disease being 1.4 times higher for Australians living in rural areas, which increases further with remoteness (AIHW, 2022). The increased risk of disease and illness is attributed to a number of health vulnerabilities including (albeit not limited to) having poorer access to health care services especially specialist care, and poor socio-economic factors such as lack of income, or lack of education (Graf et al., 2021). Moreover, rural areas also have a larger proportion of Aboriginal and Torres Strait Islander people residents who are known to have poorer health outcomes than non-Indigenous populations (AIHW, 2022; Russel et al., 2021).

Nurses are the largest health workforce in rural healthcare settings. Rural settings also have seven times fewer medical specialists and less allied health professionals compared to metropolitan areas (AIHW, 2021). The World Health Organization (WHO) (WHO, 2020) acknowledge the challenge associated with the attraction, recruitment, and retention of the rural nursing workforce globally. When considering retention of the rural nursing workforce, the WHO (2020) highlight the need for interventions in areas including education, financial incentives, and

[2] For the purpose of this study, the term 'rural' encompasses both rural and remote areas of Australia.

professional and personal support. In Australia, barriers to the attraction and retention of rural nurses includes access to employment for partners, accessible and available housing, and limited facilities for families (Smith et al., 2022).

Rural RNs are required to work at an advanced level within their full scope of practice to care for complex patients where the RN is often the first point of contact for rural populations (Australian Government Department of Health and Aged Care, 2021; Australian Government Office of the National Health Commissioner, 2023; Muirhead & Birks, 2019; Whiteing & Barr, 2021). Rural nursing requires RNs to be generalists in nature caring for a wide array of patient conditions, both chronic and acute. A generalist role in rural nursing:

> *encompasses a comprehensive spectrum of activities. It is directed towards a diversity of people with different health needs, takes place in a wide range of health care settings, and is reflective of a broad range of knowledge and skills*
> (Australian Government Office of the National Health Commissioner, 2023, pp. 11).

Further, rural nurses are required to have significant autonomy and often fulfil a variety of roles within the rural health service including being in-charge of the facility, leading a small team and educating and supporting novice staff (Pavloff et al., 2017; Whitening & Barr, 2021). It is widely agreed in the profession, that rural nursing requires a high level of critical thinking, advanced problem solving, creativity, logistical and clinical skills (Kenny et al., 2021). Rural nurses work with finite resources, in a community which may have a low population and less diversity of skills including less healthcare workers (Kenny et al., 2021). For many years, the literature has outlined several challenges for rural nurses including limited resources, low skill mix, geographic isolation, difficulty in accessing professional development and the shortage of health professionals (Burrows et al., 2018; Calleja et al., 2019; Penz et al., 2019).

Strategies have been implemented to improve the safety and quality of care of rural Australians. The National Strategic Framework for Rural and Remote Health (2016 [updated Nov 2020]) outlines the need for equal access to health care for

everyone. In particular, the Framework highlights the need for flexibility in the scope of practice of RNs in rural areas recommending improved access for education and training and promotion of advanced skills. This is a necessity with rural nurses routinely being a patient's first contact when accessing healthcare with often no access to medical services or personnel onsite (Whiteing & Barr, 2021). With limited medical services in many rural areas, the use of digital technologies or Virtual Health, is forming the way of the future improving access to specialist providers (Schwartz, 2019). Virtual Heath is a collection of digital technologies to enhance care and has emerged in Australia over recent years to provide health care for patients over a large geographical area. Virtual Health includes a number of elements including electronic medical records, video conferencing with patients and collaboration of health professionals (Foster et al., 2021)[3]. Consideration needs to be given to the future of rural nursing and the nurses' role with Virtual Health as a way forward for ensuring the safety and quality of patient care.

1.2.2. New graduate nurses

Transition to practice for the NGRN can be difficult. The transitioning to practice period is defined as the first 12 months of practice where there is a stage of stress and adjustment to the role of the RN where NGRNs experience 'transition shock' (Casey et at., 2021). According to Duchsher's stages of transition, new graduate nurses move through the three stages: doing (initial 3-4 months), being (the next 3–4-month period) and knowing (the last 4-5 months) (Duchsher & Windey, 2018). Taking the 12-month period to adjust to practice as an RN. New graduate registered nurses who are employed in a rural setting must also transition to the rural context. In rural areas there are lower staff numbers where there may only be two or three nurses in the facility, and access to medical support may be limited compared to metropolitan inpatient settings (Graf et al., 2021). Considering this difference in staff numbers, NGRNs are required to instantly work to the full scope of RN practice often with little support to solidify practice and confidence (Kenny et al., 2021).

[3] For this purpose of this study, the term Virtual Health encompasses all patient related health care digital technologies.

New graduate registered nurses in rural areas are anticipated to be able to take on the generalist nursing role, often despite minimal exposure to rural nursing in undergraduate education (Graf et at., 2021). Providing patient care in these contexts can be challenging as NGRNs need to be equipped with a wide range of skills to manage patients with a range of presentations across the lifespan and from trauma and obstetrics to mental illness. This expectation is challenging when exposure to these situations may be infrequent within the rural context (Endacott & Westley, 2006; Lea & Cruickshank, 2015; Ostini & Bonner, 2012; Penz et al., 2018). New graduate registered nurses who commence their practice in rural settings need to be adequately prepared, however, literature has identified that NGRNs are unprepared for rural practice (Calleja et al., 2019; Graf et al., 2020; Lea & Cruickshank, 2015). Taking the generalist role in rural areas can then be further exacerbated for NGRNs by limited access to support from skilled clinicians, preceptors, nurse educators, and medical and allied health staff (Calleja et al., 2019; Lea & Cruickshank, 2015; Penz et al., 2018).

Other literature has identified challenges for the NGRN that are unique to the rural context. For example, Lea and Cruickshank (2015) identified the need for NGRNs in rural areas to quickly acquire high level skills including team leader and in charge positions during their transition to practice. Calleja et al., (2019) found that a nurse transition program is the primary support strategy for the transition of rural NGRNs, however, concluded that there are challenges to the implementation of transition programs in rural areas such as available support staff. Other studies (Fowler et al., 2018; Graf et al., 2021; Ostini & Bonner, 2012;) have suggested that often NGRNs are overwhelmed and not prepared for practice in rural settings. While NGRNs are navigating the stressors of the transition year, emergent events of patient deterioration may add further stress and fear to the NGRNs already stressed state.

1.2.3. Care of the deteriorating patient

With almost half of all Australians having at least one chronic condition, patient complexity and acuity continues to increase. It is reported that one in nine patients in the acute tertiary sector experience a complication in the early stage of their hospital admission (Australian College of Nursing [ACN], 2019). New graduate registered nurses predominantly attend to their new graduate year in hospital-based acute care

positions (Duchscher, 2008; Schwartz, 2019) where there is a higher risk of patient deterioration (Large & Aldridge, 2018). New graduate registered nurses must be prepared to recognise, respond to, and manage patient deterioration (AIHW, 2020; Schwartz, 2019). A deteriorating patient has been defined by Jones et al., (2012, pp. 1031 & 1033) as:

> *one who moves from one clinical state to a worse clinical state which increases their individual risk of morbidity, including organ dysfunction, protracted hospital stay, disability or death.*

Lavoie et al., (2016) outline four processes that encompass care of the deteriorating patient including surveillance, recognition, referral, and response. Surveillance includes patient assessment and monitoring, recognition includes the interpretation of data and using clinical judgement to identify a problem, and referral requires the nurse to escalate care to the relevant clinician. Evidence around these processes has shown that nurses can lack confidence and experience in escalating care (Della Ratta, 2016; Della Ratta, 2018). The final step in the process is responding to the deteriorating patient, which involves the interventions and treatments required to stop or reverse a patient's deteriorating condition.

With increasing cases of health professionals missing patient deterioration, all Australian States/Territories have responded with processes to enhance patient safety as recommended by the Australian Commission on Safety and Quality in Health Care (2017). For example, NSW Health commenced a program from the Clinical Excellence Commission in 2010 called *Between the Flags* (BTF), which is a safety net system designed to detect the early deterioration of patients in NSW Hospitals and utilises a track and trigger system. Between the Flags was implemented from Recommendation 91 in the Special Commission of Inquiry: Acute Care Services in NSW (Special Commission of Inquiry Acute Care Services in NSW Public Hospitals, 2008) and also addresses Standard 8 Recognising and Responding to Acute Deterioration Standard in the National Safety and Quality Health Care Standards (NSQHS) (Australian Commission on Safety and Quality in Health Care [ACSQH], 2017). In Victoria, the Department of Health and Human Services (2012) outline the use of track and trigger systems for assessing patient deterioration and escalation processes in their standard

Recognising and Responding to Clinical Deterioration in Acute Health Care. Similarly, in the United Kingdom, the National Institute for Health and Care Excellence (NICE) (2023) follow the Acutely Ill Adults in Hospital: Recognising and Responding to Deterioration Guideline, which is in line with Australian recommendations.

The National Safety and Quality Health Service Standards (ACSQH, 2017) require that health service organisations have processes in place to support timely responses by skilled clinicians to manage episodes of acute deterioration. However, despite current interventions nationally and internationally, there are several barriers to the recognition and management of the deteriorating patient in rural areas. These include inadequate education programs or difficult access to education, staff shortages to create an efficient response team, minimal clinical support, and lack of resources (Augutis et al., 2023).

Experiencing high acuity patients may be a challenge for the beginning level NGRN, where managing patient deterioration has been recognised as one of the most significant challenges for NGRNs in their first 12 months of practice (Della Ratta, 2016; Duchscher, 2008; Hartigan, et al., 2010). The abilities required to care for the deteriorating patient are broad and vary dependant of the patient's condition. Sound clinical reasoning skills are required, supported by knowledge, confidence, and experience (Large & Aldridge, 2018). Clinical reasoning, which includes critical thinking as its disposition, is:

> *the process by which nurses (and other clinicians) collect cues, process the information, come to an understanding of a patient problem or situation, plan and implement interventions, evaluate outcomes, and reflect on and learn from the process* (Levett-Jones & Hoffman, 2013, pp. 4).

Multiple barriers for NGRNs in recognition of the deteriorating patient have been identified including workload, time pressures, inexperience to prioritise/organise time, as well as lineal, or task focussed thinking displayed by NGRNs (Herron, 2017). Time management and the completion of clinical tasks are often the focus of the NGRN before patient safety, thus a decline in a patient's condition may go unidentified or the acuity not prioritised (Herron, 2017; Murray et al., 2019). New graduate registered

nurses recognise their novice skill level and limited exposure to deteriorating patients leaving them feeling inadequate and fearful of managing these patients (Purling & King, 2012; Song & McCreary, 2020).

Confidence and abilities can be further challenged within the rural context for reasons previously discussed including limited support. Although it is known that NGRNs may not feel equipped to manage patient deterioration, the literature is focused on NGRNs employed in metropolitan regions. Hence, there is paucity on the current literature focused on NGRNs caring for the deteriorating patient in rural areas.

1.3. Aim, objectives, and research question

The aim of this study was to explore the experiences of new graduate registered nurses in caring for the deteriorating patient in rural areas. To gain insight into these experiences the objectives of the study were to:

- *explore the experiences of NGRNs in caring for the deteriorating patient in rural areas.*

- *explore rural NGRNs preparedness for detecting/caring for the deteriorating patient.*

- *understand how the rural practice environment affects the NGRNs' experience of caring for the deteriorating patient.*

To enable exploration of this phenomenon the research question that guided this study was:

What are the experiences of newly graduated registered nurses in caring for the deteriorating patient in the rural environment?

1.4. Significance of the study

Managing patient deterioration has been recognised as a significant challenge NGRNs experience in their first year of practice (Della Ratta, 2016; Hartigan, et al.,

2010). Experiences among NGRNs have been characterised by feelings of stress, anxiety, and unpreparedness when caring for the deteriorating patient (Della Ratta, 2016; Herron, 2017; Murray et al., 2019; Purling & King, 2012), yet the impact of the rural environment on these experiences remains unexplored. It is well known that nurses who work in rural locations often experience limited access to support, practice in isolation and require advanced skills for rural practice; practice experiences and skills often the new graduate registered nurse does not possess. Considering that the experiences of rural NGRNs is known to be one of stress, isolation, and unpreparedness to care for a deteriorating patient, provision of care by NGRNs in the rural context can have implications for patient safety.

Recognising and responding to acute deterioration is a fundamental nursing responsibility and when working in a rural area, the responsibility of the RN is magnified. Considering the rural RN is often required to work to the full registered nurse scope of practice, how the NGRN meets these demands of rural nursing, challenged further while caring for the deteriorating patient, requires understanding to deliver suitable practice support and needs.

While the NGRNs' transition to practice and their required support has had an increasing focus in current literature (Casey et al., 2021; Hawkins et al., 2018; Kenny et al., 2021; Voss et al., 2022), the focus has been towards NGRNs in metropolitan areas. The experiences of NGRNs caring for the deteriorating patient in rural practice environments and the challenges in terms of the support received and support they required to manage and respond effectively has not been explored. While there has been increased focus on new graduate nurses in the literature, there is limited information about their preparedness to respond to the deteriorating patient both in general, and specific to nursing in a rural inpatient setting.

Furthermore, evidence of rural NGRNs' experiences with patient deterioration would serve to better prepare undergraduate nurses, and has the potential to inform NGRN orientation and transition programs and determine possible facilitators and barriers to support safe and therapeutic patient care. Exploration of this phenomenon can identify recommendations that ensure patient safety, enhance health outcomes,

and optimise a safe experience for both the NGRN and the patients receiving nursing care.

1.5. Thesis outline

This thesis is presented in six chapters. This chapter has introduced and provided background and context for the study. An overview of rural nursing, new graduate nurses within the rural environment context and the recognition and response to patient deterioration have been provided. The research aim, objectives and research question are presented with a discussion on the significance of the research.

Chapter two presents the Literature Review with an overview and critical analysis of the literature related to new graduate nurses caring for the deteriorating patient and new graduate nurses practicing in rural areas. The review identifies a gap in the literature focused on new graduate nurses caring for the deteriorating patient in rural areas. This chapter was published as an integrative literature review in the Collegian: Australian Journal of Nursing Practice, Scholarship and Research in 2022 which forms part of chapter two.

Chapter three, the Methodology, provides the research design and methodology of the study. The chapter presents an overview of the qualitative design of the study and details the inclusion criteria, study setting, recruitment process, data collection and data analysis. The chapter demonstrates how data analysis was underpinned by a descriptive phenomenology methodology and how this informed the thematic analysis. Trustworthiness of the study and the ethical considerations for the study are also outlined in chapter three.

In chapter four, the findings and the demographic data of the participants are presented. The findings of this study include three themes which portrays participants' experiences as a journey. The participants' narratives are used to provide insight into the phenomenon from the participants' experiences.

Chapter five provides the discussion on the findings in relation to the current literature. The chapter highlights areas for potential change, which can improve rural

new graduate experiences in caring for the deteriorating patient in order to enhance patient safety.

This thesis concludes with chapter six, which presents recommendations for practice. The study's limitations and strengths of the study are presented along with recommendations for further research.

1.6. Summary

In summary this chapter has provided the background to the study and includes a discussion of rural nursing, new graduate nurses employed in rural environments, and care of the deteriorating patient to provide contextual information for this study. An overview of the aim, objectives, research question and significance of the study are provided. Finally, each chapter of the thesis has been outlined to give an overview of the thesis structure. A review of the literature in the following chapter expands upon the background and provides further depth associated with the recognition and response to the deteriorating patient by the NGRN and implications of rural practice.

CHAPTER 2: LITERATURE REVIEW

2.1. Introduction

This chapter presents a published paper of the review of the literature to inform the study. The paper provides background to the literature review. The aim of the review, to identity and explore the literature focused on the experiences of NGRNs for the deteriorating patient in rural areas, is established. The methods for the review are presented including the search strategy, critical appraisal, and thematic analysis. The findings of the review revealed three themes which lead into a discussion in relation to current literature. This literature review was published in 2022 in the Collegian: Australian Journal of Nursing Practice, Scholarship and Research.

2.2. Synopsis of the paper

Title of Article:
The experiences of new graduate nurses caring for the deteriorating patient in rural areas: An integrative review

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2.4. Supplementary material

Table 2.1 – *Inclusion and exclusion criteria*

Search: New graduate nurses and the deteriorating patient
Inclusion Criteria
Published between 2000-2020
Published in English language
Primary research articles
Related to graduate nurses
Related to experiences or needs
Related to initial recognising and responding to the deteriorating patient
Search: New graduate nurses and the rural environment
Inclusion Criteria
Published between 2000-2020
Published in English language
Primary research articles
Related to graduate nurses
Related to experiences or needs
Related to rural AND new graduate nurses
Related to assessment and critical thinking around care for acute patients

Table 2.2 – *PRISMA flow diagram*

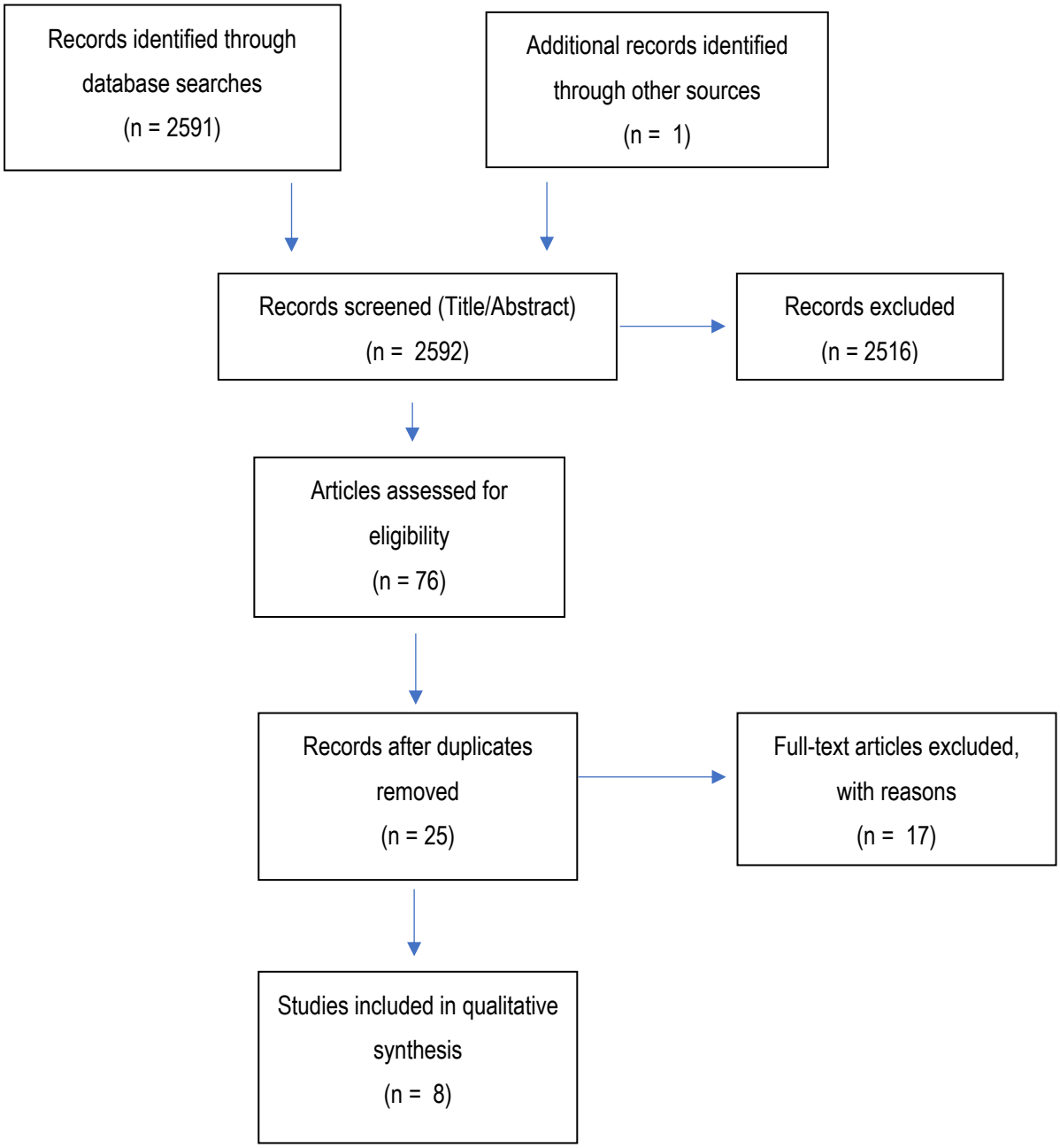

Table 2.3 - Literature review included studies

Author	Year	Country	Aim	Design/method	Sample	Findings
Della Ratta	(2016)	USA	Explore graduate nurses' experiences of caring for deteriorating patients	Qualitative interpretive phenomenological analysis; Semi structured interviews	8 participants (novice nurses) Purposive sampling from a transition program in 4 hospitals ranging from small country to large teaching hospitals	During the first year of practice discrepancy found in the graduate nurses' expectation of their ability and their actual ability to care for the deteriorating patient. Overwhelming uncertainty – trusted collegial relationships important for development.
Hartigan et al.	(2010)	Ireland	Identify acute nursing episodes which challenge the NGRN from the experienced nurses' perspective.	Qualitative descriptive study; Focus group discussions	28 RNs who had been preceptors of undergraduates from 3 university teaching hospitals; Purposive sampling	41 identified challenges for the NGRN including patient assessment and clinical decision making (includes deteriorating patient). The apprentice model with supervision of students sees no responsibility for assessment and decisions.
Herron	(2017)	USA	Explore new graduate nurses' experiences with recognition and failure to rescue.	Qualitative Descriptive Phenomenological; Individual interviews	14 new graduates from one nursing program who graduated within the last 18 months. Purposive sampling by email and messenger.	New graduates have minimal experiential training opportunities to experience the deteriorating patient. Focus is on the stable patient or skill acquisition rather than clinical reasoning in education. Experiential learning important for skill development in undergrad programs.
Lea & Cruickshank	(2014)	Aust.	Explore transitional experiences of newly graduated nurses in rural Australia.	Qualitative Exploratory, longitudinal descriptive, case study; In-depth interviews	15 new graduates in large and small rural health services. Purposive sample from transition programs in rural northern NSW	Identified support needed for NGRNs especially as they settle in around 6-7 months. Staged workload and responsibilities needed to recognise the graduate's beginning status.
Murray et al.	(2019)	Aust.	Explore the transition experience of newly graduated nurses with attention to patient safety.	Qualitative Descriptive mixed methods convergent design approach; Semi-structured interviews	11 NGRNs from one large public and one large private metropolitan hospital	NGRNs have doubt about their skills and ability. Concerns around ability to safely administer medications, whether they can recognise patient deterioration, communication initiation and the confidence to ask for help.
Sedgwick et al.	(2013)	Canada	Explore how rural RNs reason through complex clinical problems they encounter.	Qualitative Exploratory approach with observation in a simulated environment; Semi-structured interviews followed	15 acute care nurses from 9 rural hospitals were approached according to employment location.	Clinical knowledge in the rural setting is socially embedded. Comparison between novice and experienced RNs with clinical decision making suggesting both need practice to be able to improve this skill.

Table 2.3 cont. - Literature review included studies

Seright	(2011)	USA	Explore the decision-making process of the rural RN	Qualitative Grounded theory study	12 novice nurses, purposive sampling from rural critical access hospitals within one state.	Decision making experience of rural novice RNs – support/engagement from other health staff crucial.
Sterner et al.	(2017)	Sweden	Describe novice nurses' perceptions of acute situations	Qualitative, descriptive design with a phenomenological approach; Semi-structured interviews.	12 novice RNs, purposive sample from 5 hospitals and one university program.	Acute situations perceived by NGRNs – when something happened suddenly but also not always related to medical situation including lack of time, competence and responsibility. Support for the NGRN needed

Table 2.4 – *CASP Critical appraisal*

	Q1 Aim	Q2 Method	Q3 Design	Q4 Sample	Q5 Collection	Q6 Relations	Q7 Ethics	Q8 Analysis	Q9 Findings	Q10 Value
Della Ratta (2016)	√	√	√	√	√	√	√	√	√	√
Hartigan et al. (2010)	√	√	√	√	√	Not discussed	√	√	√	√
Herron (2017)	√	√	√	√	√	Possible bias	√	√	√	√
Lea & Cruickshank (2014)	√	√	√	√	√	Not discussed	√	√	√	√
Murray et al. (2019a)	√	√	√	√	√	√	√	√	√	√
Sedgwick et al. (2013)	√	√	√	√	√	Not discussed	√	√	√	√
Seright (2011)	√	√	√	√	√	Not discussed	√	√	√	√
Sterner et al. (2017)	√	√	√	√	√	√	√	√	√	√

2.5. Literature review update

Since conducting the original literature review there have been continued studies on nurses' response or role in caring for the deteriorating patient (Augutis et al., 2023; Burke & Conway, 2022; Dresser et al., 2023; Newman et al., 2022; Norris et al., 2023). Only one study is related to the NGRN caring for the deteriorating patient (Norris et al., 2023). The findings of the Norris et al. (2023) study suggest simulation for NGRNs on how to identify and manage the deteriorating patient could be beneficial. And one study is on the use of early warning systems to detect deterioration in the rural area (Augutis et al., 2023). Augutis et al. (2023) found that the effective use of early warning systems (EWS) in remote and regional areas is minimised by noncompliance and recommends that further research into the complexities with the use of EWS in rural health be undertaken. No studies were found on the experiences in caring for the deteriorating patient by NGRNs in the rural environment.

2.6. Summary

This chapter has presented the literature review used to inform the research topic. The review highlighted that NGRNs are faced with caring for deteriorating patients often with little education and few experiences to allow for skill acquisition and beginner level competence. NGRNs rely heavily on support from other staff in their clinical reasoning and clinical decision making during these emergent situations. The literature review revealed the importance of this support; however, support is often unstructured. New graduate registered nurses are unprepared to care for the deteriorating patient through both lack of effective education and experiences in undergraduate programs and transition/induction programs. As the new graduates first year of practice progresses, they often feel some relief with understanding the complexity of care and processes in emergent situations by gaining these experiences. The review highlighted the gap in the literature focused on how NGRNs experience caring for the deteriorating patient in rural areas, hence, the undertaking of this study. The following chapter will outline the methodology used for the study.

CHAPTER 3: METHODOLOGY

3.1. Introduction

Chapter three presents the design, methodology and methods for the study. The use of a qualitative design with a descriptive phenomenological approach and the justification for this design and methodology is outlined. A clear description of the methods used is presented including the study setting, inclusion criteria, recruitment strategies, and data collection. A discussion of the process for data analysis is provided and the chapter concludes with the trustworthiness of the study and ethical considerations.

3.2. Research design

This study is situated in a naturalistic, qualitative paradigm because it explores experiences where little is known about NGRNs' experiences in managing the deteriorating patient in rural areas. This research aims to understand and explain what has happened in a circumstance or context regardless of whether the findings can be extended beyond the confines of the study (Polit & Beck, 2022; Rubin & Rubin, 2011). There are two dominate research paradigms being positivist and naturalistic and the study approach used will differ based on the goals of the research and how these are to be achieved. The positivist paradigm is underpinned by the assumption that reality is fixed, and research is an objective picture with results being generalisable to a population. The positivist paradigm approach utilises orderly and disciplined procedures with tight control measures to study the phenomenon (Holloway & Wheeler, 2010; Polit & Beck, 2022). In contrast, the naturalistic paradigm has the assumption that reality is subjective and interpretative, being perceived by people through their own lens based on their own experiences, knowledge, and expectations (Holloway & Wheeler, 2010; Polit & Beck, 2022; Rubin & Rubin, 2011) and is the paradigm underpinning this study.

Qualitative research enables researchers to examine subjective human experiences to develop a holistic understanding of the phenomenon by allowing the exploration of feelings and behaviours and understanding the phenomenon as experienced by the individual (East et al., 2019; Holloway & Wheeler, 2010).

Qualitative research can be used to explore topics and phenomena where little is known and understood and allows the researcher to explore complex processes and the multidimensional aspects of human experiences. Within these experiences unexpected and expected patterns can be identified and an understanding can been gained from the perspective of participants (Tuffour, 2017). Qualitative research in nursing is highly valued as nurses pursue understanding on issues that involve human subjectivity. Understanding subjective experiences can lead to changes and improvements in management, education, and practice across healthcare environments (East et al., 2019). The qualitative approach is suitable in studies such as this study where the multifaceted nature of human experiences, the NGRNs' experiences with caring for the deteriorating patient in rural areas, is to be explored.

3.3. Research methodology

Phenomenology is the study of lived experience which aims to understand how a person perceives a phenomenon (Tuohy et al., 2013). The lived experience is the starting point and end point of phenomenology, with phenomenology creating a textual expression of the essence of the lived experience. The creation of a textual expression portrays a reflexive and reflective re-living of an experience allowing the reader to animate their own lived experience (Van Manen, 1990). Phenomenology originated in the early 20th century to develop a more inductive research approach with the idea that the human consciousness should be part of scientific study. Rather than the focus being on an event itself, phenomenology has the researcher focus on the way the event is experienced and the meanings that are created from this experience (Spencer et al., 2014; Tuffour, 2017; Tuohy et al., 2013). A foundational assumption of phenomenology is the view that our understanding and knowledge of the world is rooted in the experiences we have. There is no objective reality, rather the experiences, and the way in which these experiences are perceived, is what creates the reality (Spencer et al., 2014).

Phenomenology originated from the work of Edmund Husserl, known as the father of phenomenology, who introduced the method in the early 20th century, and Martin Heidegger who further developed the approach (Tuffour, 2017; Tuohy et al., 2013). Husserl was the principal founder of phenomenology believing that the study of science needed a philosophy that would connect deeply to the concerns of humans

(Chesnay, 2014). From Husserl and Heidegger, two main schools of phenomenological research were formed. These being descriptive (eidetic) as outlined by Husserl, applied in this study, and interpretative (hermeneutic) outlined by Heidegger (Lopez & Willis, 2004; Tuffour, 2017). Husserl gave rise to the descriptive approach through his philosophical ideas on science and that human consciousness should be part of scientific study with a systematic analysis of consciousnesses. A key belief to this approach is that the researcher should shed all personal previous ideas, knowledge, biases, and assumptions on the field of study, continually assessing any such impact so there is no influence over the outcomes of the study and to see the phenomenon in its purist form before it can be influenced. This can be termed as *epoche* or bracketing (Tuohy et al., 2013). This allows the description of the experiences to be considered a science (Lopez & Willis, 2004). Interpretive phenomenology follows from the work of Heidegger who believed we can study human experiences going further than the description and into the meaning embedded within the experience, taking a hermeneutic approach. Hermeneutics is a method or process for uncovering what is usually hidden in experiences and relationships, focussing on what humans' experience not what they consciously know (Lopez & Willis, 2004). For the interpretive approach, the researcher uses their own subjectiveness to examine the phenomenon as experienced by the participants with the idea that the researcher-participant intersubjectivity forms an important part of the research (Tuffour, 2017).

There are four fundamental themes that can enable reflection on experiences for phenomenologists. First there is the 'lived space' or the place in which the person is located. Secondly the 'lived time' is the subjective time or the perception of time such as movement of time. 'Lived body' is being always in our body and the conscious and unconscious changes we make. Lastly 'lived human relation' is the relationships we maintain or have with others (Van Manen, 1990). These themes allow greater understanding on the participants' experiences and how their experiences have shaped their world.

Phenomenology became a mature and well accepted approach to research in the later part of the 20th century as it was recognised that a more inductive approach to research, where specific observations move to become more generalised, became apparent. This was especially in the fields of health and education (Tuffour, 2017).

Nursing concerns itself with the responses of people to their actual or potential health problems in which nurses are a key aspect of their care. Needing an understanding of individuals as unique with their own meaning and interpretations of their interactions with others and the environment means that phenomenology is a particularly useful methodology for nursing research (Lopez & Willis, 2004).

The methodology that underpins this study is descriptive phenomenology which aims to investigate the lived experience of the participants to create a foundational knowledge of the phenomenon (Jackson et al., 2018). In descriptive phenomenology the richness of the descriptions of the experiences is foremost rather than the number of participants (Jackson et al., 2018). This approach allows a description of the phenomenon without the need to interpret meaning, as undertaken with interpretative phenomenology. Descriptive phenomenology is suited to this study as the approach enables the researcher to look at the phenomenon in a new light, where experiences that were unseen and unknown are made visible, providing a description of a phenomenon where little is known (Sundler et al., 2019). With currently no known literature on the phenomenon, first describing the experiences of the participants is valuable. The lived experience is inextricably linked with the subject and therefore there is no dualist view, that is there is no access to the experience except through the participant. The founder of descriptive phenomenology, Edmund Husserl, felt it important to put aside researcher prejudice and presuppositions to gain raw data prior to it being influenced by attitudes or influences. The Husserlian concept of transcendal subjectivity should be the goal of the researcher. Transcendal subjectivity sees the impact of the researcher on the inquiry continually assessed ensuring that any prejudice, bias, and pre-conceived ideas do not influence the study through bracketing or *epoche* (Jackson et al., 2018; Lopez & Willis, 2004).

An assumption of Husserl's philosophy is the perception of an experience as perceived by the human consciousness as valuable and should be part of scientific study, this led to the rise of descriptive phenomenology (Lopez & Willis, 2004). Another assumption of Husserl's approach is that there are features of any lived experiences that are common to many people who have this experience, named universal essences or eidetic structures. These commonalities in the experience allow some generalisation and generalised description to be possible. With the development of

descriptive phenomenology and its stemming from science, these commonalities allowed the lived experience to be considered a science. It is accepted in descriptive phenomenology that there are real and irreal features that form part of the experience. Real features such as time and place can exist independently of consciousness. However, irreal features such as atmosphere and sense of justice forms part of the consciousness and accepting and drawing on the irreal will allow a holistic richness to the experience (Jackson et al., 2018). In descriptive phenomenology, features that are independent of consciousness are placed aside to focus purely on the consciousness, being the context of the experience is put to one side and the experience is focussed on alone (Tuohy et al., 2012).

The aim of this study was to explore the experiences of newly graduated registered nurses in caring for the deteriorating patient in the rural environment thus, a descriptive phenomenological approach was suited to achieve the study aim. The objectives of the study include to explore these experiences, including the NGRNs' preparedness for detecting/caring for the deteriorating patient and to understand how the rural practice environment might affect their experiences. With the primary aim of descriptive phenomenology being to understand a phenomenon as experienced by a participant in their lived world, this approach has allowed the researcher to gain understanding of the experiences of participants in relation to the phenomenon with the focus being on the experiences of the participant not the event in which the experience occurred (Jackson et al., 2018). In line with descriptive phenomenology the researcher bracketed their assumptions, and while there are debates around whether bracketing can really occur, as how much can a researcher really put aside their knowledge and beliefs (Lopez & Willis, 2004; Tuohy et al., 2012), the researcher has kept a reflective journal and continually checked the analysis against the participants' narratives to ensure reflexivity. As there is currently no literature on NGRNs caring for the deteriorating patient in rural areas, highlighting and describing these experiences has given vital insight into the phenomenon. With descriptive phenomenology, this study has illuminated participants' experiences of caring for the deteriorating patient in rural areas to gain understanding on and describe the phenomenon.

3.4. Research methods

This section outlines the inclusion criteria of the study, study setting, and the process of recruitment. The data collection methods used, sample size and data analysis are discussed. Trustworthiness and ethical issues for the study are also provided.

3.4.1. Study setting

NGRNs who completed their transition year in rural Australia, were the focus of this study. The Australian Institute of Health and Welfare's (AIHW, 2019b) definition of rural and remote includes all areas outside of major cities and the Australian Statistical Geography Standard (ASGS) (ABS, 2018) defines rural and remote areas of Australia as *Inner Regional, Outer Regional, Remote Australia* and *Very Remote Australia*. The Australian Government Department of Health (Australian Government Department of Health, 2021) developed the Modified Monash Model (MMM) from the ASGS. This model defines whether a location is city, rural, remote, or very remote in numerical order 1 to 7 and assists in the distribution of health workforce. The areas of MM (Monash Model) 4 (medium rural health regions) MM 5 (small rural health regions), MM 6 (remote communities) and MM 7 (very remote communities) define the health services that are the setting for the study (see Figure 3.1, pp. 32). Therefore, the MM 4, 5, 6 and 7 categories are referred to as rural for the purpose of this study and have been selected as they have several rural health services similar in size and offering similar services and offer new graduate nurse positions. All participants were employed in an inpatient hospital or Multi-Purpose Centre (MPC) setting [4].

[4] The rural environment in this study included focus on inpatient services in rural areas and is not generalised to primary health care.

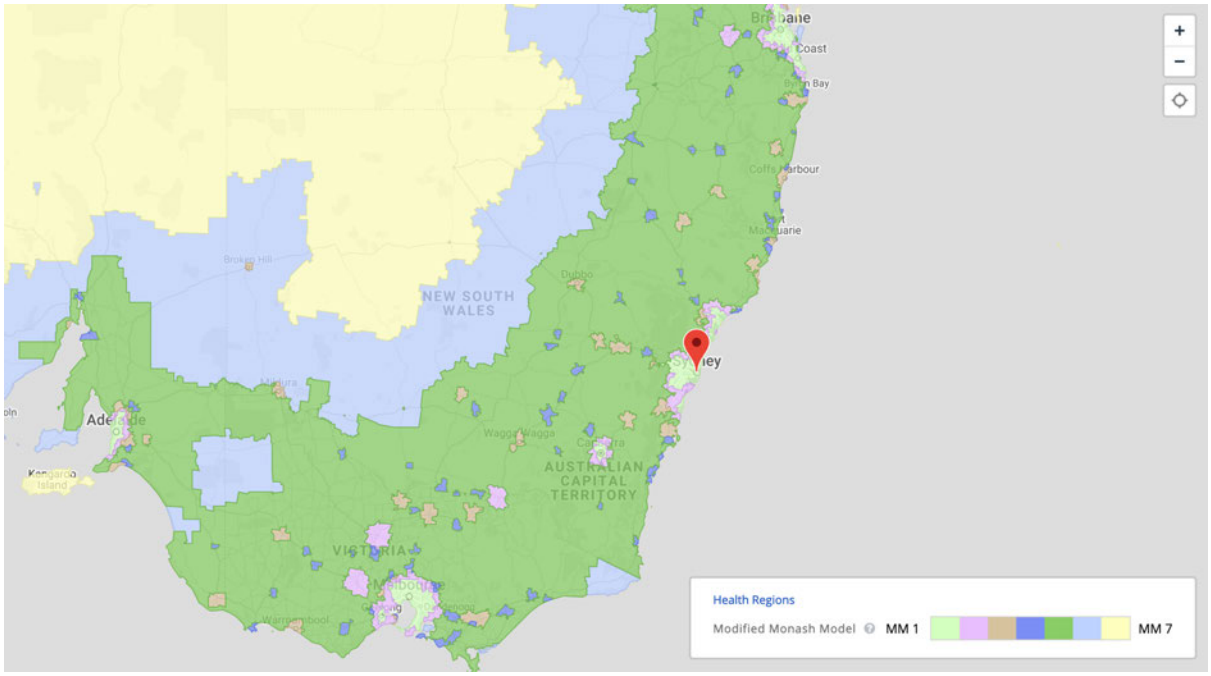

Figure 3.1 – Health Workforce Locator demonstrating MM 4 in the dark blue, MM 5 in the dark green, MM 6 in the light blue, MM 7 in the yellow (Australian Government Department of Health, 2020.)

3.4.2. Inclusion criteria

To participate in the study NGRNs were registered with the Australian Health Practitioner Regulation Agency (AHPRA), graduated from an Australian University, and were employed within a rural inpatient health service. New graduate registered nurses in a formal transition program and those not in a formal transition program were eligible to participate in the study. While deteriorating patients can occur in any area, participants were recruited from those employed within inpatient areas of rural health services for at least 12 months. The participants had completed their first 12 months of practice post-graduation (or 24 months part-time) within the last 24 months and had experienced at least one occurrence of detecting and/or managing a deteriorating patient during this employment period.

Duchscher, (2008) suggests that the first three to four months of transition are extremely stressful for the new graduate nurse and that new graduates are not ready to care for unstable patients until six months into their first year of transition to the workforce. In recognition of this, all NGRNs who have completed at least 12 months of practice within a rural inpatient health service were eligible to participate in this study. This criteria for eligibility allowed for capturing of all experiences that occurred

for the NGRN during the transition period. Further, it was recognised that a greater understanding of the phenomenon could be developed with experiences occurring at different stages of transition in their new graduate year which has allowed the NGRN participants time to reflect on the phenomenon.

3.4.3. Recruitment

The target population for this study was NGRNs from rural inpatient health services in Australia meeting the MM 4, 5, 6, 7 categories. As per Figure 3.1 (pp. 32) participants have been drawn from MM 4 (dark blue highlighted areas), MM 5 (green highlighted areas), MM 6 (light blue highlighted areas) and MM 7 (yellow highlighted areas) in Australia. Although the targeted sample size was approximately 8-10 NGRNs, only seven participants were recruited. Considering a main belief of descriptive phenomenology is to gain deep understanding and insight into the phenomenon under study, depth and richness of descriptions is foremost. There is no requirement for the sample size, rather recruitment until data saturation occurs with rich participant descriptions of their experience (Jackson et al., 2018), The seven NGRNs in the study provided rich data where no new themes were emerging as the interviews progressed and allowed a good understanding of the phenomenon.

A purposive sampling technique was used for this study to yield participants with rich data and to meet the inclusions and exclusions list (Pietkiewicz & Smith, 2014; Polit & Beck, 2022). The recruitment occurred in 2022 aiming to recruit NGRNs who graduated in 2020 having completed a graduate year in 2021. A recruitment flyer (See Appendix A: Recruitment flyer) was publicised and distributed through social media platforms such as Facebook and Twitter, along with professional and education networks including the NSW Nurses Association, Australian Healthcare Academy, and the Rural and Remote Network. Snowballing sampling was also used to gain further participants. The snowball strategy utilises already recruited participants to attract other participants suited to the study (Alase, 2017). The participants were asked on the recruitment flyer to contact the researcher to receive the Participants Information Sheet (See Appendix B: Participants Information Sheet) via their nominated email address.

3.4.4. Data collection

Data for this study was collected through individual in-depth interviewing. The naturalistic approach explores complexities and factors that interact within an experience which fits with in-depth interviewing (Lopez & Willis, 2004; Rubin & Rubin, 2011). Prior to the commencement of each interview, participants were asked to complete a demographic questionnaire. The questionnaire (Table 3.1, pp. 34) sought geographical information including the location of the health service plus details about the participant's age, gender, date commenced, and employment as a RN, any past nursing experience. This information is used to describe the participants in this study.

Table 3.1 - Demographic questionnaire

1. What is the postcode of the community you undertook your new graduate year?
2. What date did you commence and complete your new graduate year?
3. Have you had any prior nursing experience before becoming an RN (EN, AIN)?
4. Age at time of interview:
5. Gender:

Interviews allowed an exchange of conversation that was a shared experience between the participant and researcher allowing valuable insight into the participants' experience. The development of the relationship between the researcher and the interviewee aims to produce data about knowledge, beliefs, and behaviour of the phenomenon (Alase, 2017; Minichiello et al., 2008). Due to the wide geographical area included in the study, and with the study conducted during the time of the COVID-19 pandemic, interviews were conducted over Zoom (an online communication platform) for six participants and by phone for one participant.

In-depth interviewing allowed encounters between the researcher and the participant where rapport developed and with this, a greater understanding of the phenomenon occurred (Minichiello et al., 2008). The primary aim of descriptive phenomenology is to gain an enhanced understanding of a lived phenomenon experienced by a participant in which in-depth interviews has achieved this (Jackson et al., 2018; Minichiello et al., 2008). In the in-depth interview approach, the interviewer (researcher) had an interview schedule with an overarching question and a number of prompts to maintain fluidity with an element of structure but allowed in-depth

exploration and questioning. The researcher requested participants to describe the experience rather than explain it and as descriptive phenomenology aims to seek knowledge of the experiences of the participant but is not concerned with how the phenomenon appears to the researcher, bracketing occurred to sperate prejudice of the researcher (Jackson et al., 2018). When viewed within a descriptive phenomenological approach, the nature of the in-depth interviews allowed a detailed account of personal lived experiences and further questioning of points of interest. Rather than the focus being on an event itself, the focus was on the way the event was experienced and the meanings that were created from this experience (Minichiello et al., 2008).

Interviews were conducted with individual participants, the one-to-one allowed the researcher control over the process and the freedom for the researcher to express thoughts within the interview to direct and/or support individual participants (O'Leary, 2014). The researcher developed skills in interviewing to ensure the ability to ask open ended questions without any hidden presumptions and develop a rapport with the participant which is important in the interview process. The researcher took a self-directed learning approach to interview skills, then explored, and practiced these skills with two senior nurse academics. These two academics reviewed the new graduate nurse interview schedule to ensure appropriateness and clarity of the questions and validated the questions for suitability in line with the research aims. Developing an interview plan or schedule was attended to with ordered questions and prompts to maintain some structure and to keep the interviews on track which is presented in Table 3.2 (pp. 36).

The interview time was approximately 60 minutes in length as suited in a descriptive phenomenology study (Alase, 2017; Pietkiewicz & Smith, 2014). Interviews ranged between 30 and 60 minutes. The researcher used prompts to facilitate the interview and keep the focus on the aims of the research. Interviews were audio recorded and transcribed verbatim by a transcription service and checked by the researcher.

Table 3.2 - Interview Schedule

1. Can you tell me about experiences you have had in caring for the deteriorating patient in your first 12 months as a registered nurse? Prompts: - What were those experiences like, how did you feel about them? - How well prepared did you feel to care for the deteriorating patient? - How did you feel about the level of support for you when caring for the deteriorating patient in the rural environment?

3.5. Data analysis

This qualitative study followed a descriptive phenomenological approach to data analysis. A qualitative data process involves a sequential series of activities and includes reflection in the field, data preparation, data familiarisation, searching for themes and patterns, and interpreting and attaching meaning (Norwood, 2010). Analysis of qualitative data may be non-linear and a complex process, yet it is structured and systematic. Analysing phenomenological research requires the researcher to stay very close to the text that is being analysed to ensure that it is the participant's account that drives analysis, with revisiting of the text to ensure this occurs. Data analysis saw the researcher move forward and back between data collection and analysis, known as iterative activity. In phenomenological analysis, it is assumed that there will be provisional perspectives on the phenomenon, but as the text is analysed, an emerging understanding may challenge the researcher's assumptions on the phenomenon. As such, the phenomenological analysis is compelled towards an empathetic approach to analysis (Holloway & Wheeler, 2010; Willig, 2013). In this study, a descriptive approach to analysis based on phenomenology allowed information gathering on the phenomenon and an exploration of associated characteristics.

When using thematic analysis based on descriptive phenomenology, the process identifies meaning form the original data, followed by the organisation of these meanings into themes. Findings are reported as a descriptive text where themes are illustrated with quotes to be grounded in the data. Sundler et al., (2019) outlines the

approach of qualitative thematic analysis based on descriptive phenomenology that is inductive, meaning it originates with specific observations or information and moves to more generalised and broad themes. The complexity of meanings is in the data explored rather than any measure of frequency. The analysis process for descriptive phenomenology includes achieving familiarity with the data through open-minded reading, searching for meaning and themes and organising themes into a meaningful wholeness (Sundler et al., 2019). This is supported by a step-by-step approach for conducting a trustworthy thematic analysis outlined by Braun and Clarke (2006) which was followed for data analysis. The step-by-step process includes six phases: phase 1 familiarising yourself with your data, phase 2 generating initial codes, phase 3 searching for themes, phase 4 reviewing themes, phase 5 defining and naming themes and phase 6 producing the report (Braun & Clarke 2006, pp. 87).

3.5.1. Phase 1: Familiarizing with the data

This phase saw the researcher immerse themselves in the data with in-depth reading, aiming to familiarise themselves with the data collected (Braun & Clarke, 2006; Nowell et al., 2017; Terry et al., 2017). To become immersed in the data the researcher read and re-read the data where they actively searched for emerging patterns and meaning within the text. The interview transcripts were transcribed verbatim and were read in full with reflection on the data, meanings, and the researcher's own early thoughts noted. On a second reading of the transcripts, the interview recordings were listened to alongside the transcript reading, with additions to the notes regarding voice tone in all interviews and body language in those conducted via Zoom. Following readings allowed the researcher to immerse themselves further in the data and consider notes that the researcher collected during the interview. Within these readings, the researcher noted patterns, quirks, and areas to further reflect on which facilitates deep engagement through reading and re-reading (Terry et al., 2017).

The researcher searched for meaning of patterns and was guided by openness, meaning a reflective process occurred to illuminate meanings (Sundler et al., 2019). The researcher was open, honest, and reflective on their own prejudices, perspectives, beliefs and developing theories (Nowell et al., 2017) and in line with Husserl's descriptive phenomenology, these thoughts and feelings were 'bracketed'

to ensure the true meaning of the text (Tuohy et al., 2013). To that end, the researcher documented these thoughts and feelings in a reflective journal to bracket assumptions and feelings, with insights on the research topic noted in preparation for the next step of coding (Nowell et al., 2017)

3.5.2. Phase 2: Generating initial codes

Once the researcher had familiarised themselves with the data, they began to generate initial codes. Coding assists the researcher with gaining insight into the data and what interests them and provides a rigorous and thorough foundation of the analysis (Braun & Clarke, 2006; Terry et al, 2017). In this phase the researcher continued revisiting the data with reflection, interaction, and consideration. Within this process, the researcher simplified the data by looking for specific characteristics within the unstructured data to create initial ideas about what was occurring. Questions were asked such as what does this stand for, and what else is like this (Nowell et al., 2017; Moser & Korstjens, 2018). The coding process saw the adding of labels, or 'tagging' with a few words, to the data and relating them to a particular theme with a good code being one that captures the qualitative richness of the phenomenon of study derived from open and inclusive generation (Nowell et al., 2017; Terry et al., 2017). The process was confirmed with senior researchers ensuring any bias was removed. The participants' narratives were colour coded based on similar connotations and notes were made down the side of the transcripts. A repeat of this occurred with a new interview transcript and notes compared. The researcher was systematic in this approach, working through the data set with equal attention to each data item, and identifying items that may form the basis of themes. The codes generated had good boundaries ensuring they would not be interchangeable or void (Braun & Clarke, 2006; Nowell et al., 2017).

3.5.3. Phase 3: Searching for themes

Once all data had been initially coded and collated, this phase saw the development of themes through sorting and collating the coded data. A theme unifies fragments of a meaning and creates identity to meanings which brings the experience into a meaningful whole (Braun and Clarke, 2006). Whilst developing themes the researcher used an inductive approach to analysis to keep the themes strongly linked to the data. Fitting with the descriptive phenomenological approach, the researcher

worked to eliminate any preconceived ideas through discussions with senior researchers (supervisors) (Nowell et al., 2017; Tuohy et al., 2013). Whilst searching for themes the researcher utilised concept maps to organise labels into themes and to provide detail on the analysis. The use of maps, charts and tables can aid in organising of the codes into themes and then be used to provide detail on the analysis so readers can judge that the themes are rooted in the data (Braun & Clarke, 2006; Nowell et al., 2017). Tools such as thematic maps can aids in identifying the boundaries and relationships of each theme (Terry et al., 2017). During the process some codes formed themes and other subthemes, while some codes seemed void at first. However, rather than discarding these codes, the researcher kept them in a miscellaneous theme until the whole process of analysis was complete and integrated into other themes as appropriate (Braun & Clarke, 2006; Nowell et al., 2017). During this process the researcher organised codes and labels into three main themes. Some labels required time and multiple revisiting of the data with senior researchers to contribute to the analysis.

3.5.4. Phase 4: Reviewing themes

Phase four involved the refinement of the developed themes, to create a coherent pattern by reviewing coded data in each theme. The themes were reviewed to ensure they accurately reflected the data set as a whole, where they showed inadequacies in the original coding and theme development, themes were re-shaped or reviewed. Codes may be added or deleted in this phase and as coding is an ongoing process, recoding should be expected (Braun & Clarke, 2006; Nowell et al., 2017; Terry et al., 2017). In this phase the researcher found that some themes did not have enough supportive data while others had significant amounts. Therefore, themes were collapsed, and sub-themes were created. Each theme demonstrated how it was clearly and directly derived from the data, by returning to the raw data for comparison with the developed themes. Reviewing the themes as suggested by Braun and Clarke, (2006), Nowell et al., (2017), and Terry et al., (2017) was done collaboratively in this study between the researchers with multiple attempts at arranging labels and crafting themes and subthemes with review of how each theme strongly links to and is derived from the data.

3.5.5. Phase 5: Defining and naming themes

During the fifth phase the researcher read each theme with detail, conducting a detailed analysis to see the experiences that each theme portrayed. The naming of each theme was then done to reflect the narrative of the participants. In this phase the researcher looked at how the themes fitted together creating an overall narrative of the phenomenon in relation to the research aim. While defining the themes the process of peer debriefing can allude the primary researcher to themes or insights that may not have been explored and spoken without the peer support (Nowell et al., 2017). Senior researchers in this study were frequently collaborated with in this phase continuing to challenge the researcher to refine themes to the point of a clear and concise narrative. To complete this stage the researcher clearly described the content and scope of each theme, until refinement was no longer needed (Braun & Clarke, 2006; Nowel et al., 2017).

3.5.6. Phase 6: Producing the report (thesis)

The aim of the write up of this study's report was to share the experiences from the data in a way that displays the validity and merit of the analysis (Braun & Clarke, 2006). The aim was to be precise and succinct and in a logical order with no repetition, maintaining the interest of the reader where the findings are identifiable to the reader to demonstrate credibility and believability (Braun & Clarke, 2006). Multiple reviews were done by the researcher and senior researchers of the findings to remove repetition and create a logical narrative. To avoid offering a flat description of the themes, the use of quotes was inserted through the writing on each theme. Excerpts of the raw data inserted into the report go beyond just a description of the data towards giving validity and merit to the text (Nowell et al., 2017; Terry et al., 2017). Overall, the final thesis has the individual themes collaboratively portraying the participants' narratives on what is revealed about NGRNs experiences of caring for the deteriorating patient within a rural setting (Nowell et al., 2017).

3.6. Trustworthiness and Ethics

Trustworthiness is the degree of confidence qualitative researchers have in the findings of the study and is assessed by using the criteria of creditability, transferability, dependability, confirmability, and authenticity. This process ensures a rigorous approach is taken to qualitative research where, unlike in quantitative research,

established instruments with validity and reliability are not used (Polit & Beck, 2022). Therefore, it is important for qualitative researchers to address how they can establish that the findings of the study are trustworthy by applying the concept of trustworthiness. The researcher in this study undertook measures to ensure trustworthiness such as keeping a reflective journal. This allowed the researcher to continually reflect on thoughts and considerations while ensuring the narratives remain that of the participants and ensure bracketing of the researcher bias and assumptions was identified and removed. To ensure trustworthiness of the report the researcher used data to support the main points, building the report to a convincing discussion on the phenomenon.

Lincoln and Guba (1985, as cited in Polit & Beck, 2022) suggested four criteria for developing trustworthiness: credibility, dependability, confirmability, and transferability. This was later amended to five with an additional criterion, authenticity. How the study meets these five criteria is outlined below followed by further strategies employed to ensure trustworthiness.

3.6.1. Credibility

Qualitative researchers must endeavour to establish their credibility in the study. Credibility is seen by the Lincoln and Guba framework (in 1985, as cited in Polit & Beck, 2022) as an overriding goal of qualitative research and signifies the confidence and truth there is in the data and that the interpretation of the data is the truth. Credibility is seen through the researcher carrying out two aspects, first undertaking the study in a way that ensures believability and second, taking steps to demonstrate credibility to external readers (Polit & Beck, 2022). To ensure the report is credible, the researcher discussed all parts of the results including data that was incongruent with the research question and anything unexpected that arose with senior researchers. This study is transparent and descriptive in its methods and processes taken with the aim to ensure the research is believable and transparent to external readers. Participants' quotes and excerpts are provided within the findings to add context and confirmations of the data to provide accuracy. Descriptions need to be clear and consistent (Holloway & Wheeler, 2010; Sundler et al., 2019). Credibility was further enhanced as the researcher adopted a self-critical stance reflecting

continually on their own role, relationships, and assumptions (Holloway & Wheeler, 2010).

3.6.2. Dependability

The second criteria, dependability, refers to the reliability of the data over both time and conditions. Meaning that if the study was to be replicated as closely as possible the findings will still be the same (Polit & Beck, 2022). The methodology and ways in which this study was undertaken has been outlined in detail and could be followed for replication. If this study were to be replicated within the same approach and specific methods outlined the results should be dependable. This thesis serves as an audit trail through its descriptive outline on the methodology and ways in which this study was undertaken and will ensure dependability.

3.6.3. Confirmability

Confirmability ensures that the findings of the study reflect what the participants have said and that the interpretations are an accurate reflection of this rather than of the researcher. This criterion will ensure reflection of the participants voice and no bias or presuppositions of the researcher (Polit & Beck, 2022). By utilising thematic analysis to identify and converge themes based on a small number of participants, confirmability of the participants voices was established. Peer review, or investigator triangulation, where a senior researcher confirms the data and interpretations (O'Leary, 2014), was carried out by two senior and experienced qualitative researchers where re-analysing the data did not detect bias and added to the trustworthiness. Searching for alternative explanations within the themes was done by the senior researchers which added trustworthiness by challenging the researcher on notions or events that do not fit patterns arising. This, in places, suggested interpretation was not accurate or that another pattern or theme was required to be established. Reflexivity must be maintained through the entire process by maintaining a reflective attitude. To demonstrate how the derived descriptions are grounded in the data, in this study they are illustrated with the original data by the use of quotes (Sundler et al., 2019).

3.6.4. Transferability

Transferability enables the findings of the study to be transferred to a different or similar context and is somewhat similar to generalisability. While the aim of qualitative research is not to generalise the findings across any population or context, the researcher must provide data to ensure that readers can evaluate the applicability of the findings in other contexts (Polit & Beck, 2022). Transferability can ensure whether a study is sound and adds new knowledge to an area of study (Sundler et al., 2019). To ensure transferability of this study all methods and processes are outlined in detail. The demographics of the location and participants in the study are provided in the findings to allow another researcher to determine if the context can suit another population such as new graduates in a different rural area. The selection criteria for participants has been outlined with clear articulation of the purposive sample type and of the context for the purpose of transferability.

3.6.5. Authenticity

Authenticity is achieved by conveying the feelings of participants to give the reader a heightened sensitivity to issues being illustrated as authentic (Polit & Beck, 2022). This study has produced authenticity in the findings and discussions by descriptive and empathetic writing that draws from the voice of the participants focussing on their experiences rather than on the situation surrounding the experience. Excerpts and quotes are used to assert the strength of points. Descriptive analysis elaborates on these experiences of the participants and provides authentic accounts from participants. Linking to the audit trail which is a strategy to be able to judge validity and authenticity a detailed description of the process, concepts, people, and conceptual developments will have any reader draw the same conclusions.

3.6.6. Ethics

This study was undertaken in accordance with the National Statement in Ethical Conduct in Human Research (National Health and Medical Research Council [NHMRC], 2018a) which aims to ensure that research is conducted in an ethical manner with appropriate review and further, an ethos to lead and engage in all that is human research. The Australian Code for the Responsible Conduct of Research (NHMRC, 2018b) guided this research which articulates the principles that

characterise an honest and ethical research culture with a framework and expectations of research conducted in Australia.

Human research ethics approval was sought and approved through the University of New England's Human Research Ethics Committee (HREC) (See Appendix C: Ethics approval). Later with transfer of University's, this was adopted by the research committee at the University of Southern Queensland. Approval was also sought through the Research Office of Hunter New England Local Health District, Western NSW Local Health District, and Far West NSW Local Health District to have access to contact nurse managers and educator for recruitment (See Appendix D: Access request approvals). The HREC (University of New England Human Research Ethics Committee, 2019, pp.1) define risk as any "physical, psychological, social, economic, or legal, or the potential to cause people to think they have been treated disrespectfully". This study was of minimal risk, the considerations for this study include dependant or unequal relationship with the researcher/participant but met the criteria for an expedited review. One participant was a former student of the researcher. This did not create any ethical compromise, rather it enhanced the interview through the participants trusting relationship with the researcher.

3.6.7. Informed consent

Informed consent requires the participant to have full information on the research, and be able to comprehend this information, to accept or decline their participation (Polit & Beck, 2022). In this study an information sheet to clearly provide information on the study was provided to participants (See Appendix B: Participants Information Sheet). Participation was voluntary and could be withdrawn by participants at any time without consequence. Informed consent (See Appendix E: Consent Form) was sought prior to the interview and also confirmed again at the time of the interview. This study's participants were NGRNs who had only recently completed their university degree and with the researcher being a lecturer in nursing at a university, it was possible that a NGRN may be a previous student of the researcher. The researcher recruited participants through advertisement and networking creating distance with this possible relationship and on recruitment, disclosed their position to participants prior to receiving informed consent. With participation being voluntary, the participants could have declined the interview.

3.6.8. Confidentiality

A consideration with this study was that participants were to be quoted. Participants have the right to expect that data obtained will be kept in confidence. The greatest means of protecting confidentiality is through anonymity, however, this could not occur in this qualitative study with in-depth interviews. Rather a pledge of confidentiality with confidentially procedures was produced (Polit & Beck, 2022). Participants were notified of this in the Participants Information Sheet prior to consent being obtained. Where a participant was quoted a pseudonym was used and participant's details are not identifiable in the reporting of the study. In general, privacy and confidentially has been ensured through de-identification of participants. This is especially crucial in small qualitative studies such as this where due to the small number of participants, the nature of rural workplaces, and rich data, further measures must be taken such as withholding any suggestion of the workplace, gender, or culture (Polit & Beck, 2022). To further ensure confidentiality, digital data is stored behind passcode protected areas and hard copy data stored in a locked filing cabinet and will be destroyed after five years as per the National Health and Medical Research Council (2019).

3.6.9. Beneficence and non-maleficence

Participants have the right not to be harmed with their physical and mental health protected, and any interview must maintain self-respect and self-esteem (Cross, 2019). To always be considered is the principles of beneficence and non-maleficence which require that we 'do good' and 'do no harm' and that the benefits outweigh any risk (Holloway & Wheeler, 2010). There were minimal chances of doing harm in this study, however, as the research was focused on experiences, and re-living experiences, the potential to elicit strong emotions was a possibility. The events that participants reflected on included poor patient outcomes in some instances, or situations of stress which could have a negative reaction. The researcher during interviews monitored how the questioning was affecting the participants. If needed the interview was to be stopped and the participant referred to professional counselling including their Employee Assistance Program or Lifeline (Pietkiewicz & Smith, 2014). This however was not required.

3.7. Summary

This chapter has outlined the use of a qualitative research design, the descriptive phenomenology approach and the methods utilised in this study. Trustworthiness of a qualitative study has been reviewed and the chapter has concluded with ethical considerations. The following chapter will present the findings of this study.

CHAPTER 4: FINDINGS

4.1. Introduction

This chapter focuses on the findings derived through in-depth interviews with the seven new graduate nurses about their experiences of caring for the deteriorating patient in rural areas. The research question that guided this study was 'What are the experiences of newly graduated registered nurses in caring for the deteriorating patient in the rural environment?' A qualitative research design with a phenomenological methodology enabled the researcher to investigate the lived experience of managing the deteriorating patient within the rural environment to gather a holistic understanding of the phenomenon. Prior to discussing the findings, the demographic data of the seven participants, inclusive of practice experience of each participant and the rurality of the location in which they undertook their new graduate year, is presented.

4.2. The participants

There were seven participants in this study and their demographic data are presented in Table 4.1 (pp. 48). Participants in this study were new graduate registered nurses registered with the Australian Health Practitioner Regulation Agency, had graduated from an Australian University, and were employed within a rural inpatient health service in their graduate year. Participants were recruited from areas in Australia that are classified as MM 4 (medium rural health regions), MM 5 (small rural health regions), MM 6 (remote communities) and MM 7 (very remote communities) by the Modified Monash Model. Two participants were from an MM 4 area, two from a MM 5 area, two from an MM 6 area and one from an MM 7 area. Participants were varied in gender and culture which has not been reported to ensure confidentiality. All participants undertook their new graduate year in the eastern states of Australia. Six participants undertook a formal transition to practice program, the other was not employed in a transition program. All participants were employed within inpatient areas of the rural health services that included working in rural/remote Emergency Departments (ED). The participants completed their first 12 months of practice full time in either 2020 or 2021. All participants had experienced at least one

occurrence of recognising and responding to a deteriorating patient during their graduate year.

Table 4.1 - Demographic profile

Participant	MM area	New Graduate Year	Prior nursing experience	Transition to practice program	Age	Facility size	Medical coverage
Ella	4	2021	None	Yes	35	Multi-Purpose Centre (MPC) with 24-hour emergency and 6 bed sub-acute unit.	Medical Officer (MO) in ED
Terri	4	2021	Assistant in Nursing (AIN)	Yes	24	Small Hospital with 24-hour emergency and acute care units	MO in ED
Sia	5	2021	AIN	No	40	MPC with 24-hour emergency, sub-acute inpatient unit, and residential care unit	On-call MO
Jo	5	2021	None	Yes	22	Small Hospital with 24-hour emergency and acute care units	On-call MO and Virtual Health
Claire	6	2020	Endorsed Enrolled Nurse (EEN)	Yes	30	Small Hospital with 24-hour emergency, acute care unit, and rehabilitation unit.	On-call MO and Virtual Health
Maree	6	2020	None	Yes	23	MPC with 24-hour Emergency, 3 subacute bed unit, and residential care.	Virtual Health
Rachel	7	2020	None	Yes	39	MPC with 24-hour Emergency, sub-acute inpatient unit, and residential care.	Virtual Health

4.3. Findings

Data analysis saw the emergence of three themes that represent new graduate nurses' experiences in managing deterioration within the rural context. Each theme is presented individually but form a narrative of the phenomenon with participant quotes to ensure the account remains the voice of the participants. The first theme *First encounters - Transition to the rural team*, shares the lived experiences of the participants as they transitioned into the rural team and experienced their first deteriorating patients. The second theme, *Practice support for managing deterioration,* highlights how practice support influenced the way in which the participants'

experience unfolded and the third theme, *The road to confidence,* encompasses the importance of clinical learning strategies, ongoing education, self-directed learning, and reflective practice to enhance their care of the deteriorating patient. Each theme comprises of two subthemes; themes and subthemes are listed in Table 4.2 (pp. 49). Each theme is discussed individually.

Table 4.2 - Themes and Subthemes

Theme	Subtheme 1	Subtheme 2
First encounters - Transition to the rural team	You can't stand back	That's everyone as a whole team
Practice support for managing deterioration	Someone to just say what's needed	I'm here to fall back on
The road to confidence	I want to learn, teach me	Look how far I've come

4.3.1. Theme 1: First encounters - Transition to the rural team

While participants were reflecting on their experience on caring for the deteriorating patient their discussions were initially focused on the team they were working with. The composition and size of the healthcare team were significant factors that influenced participants initial experiences of managing deterioration as this required them to take on complex roles they were not prepared for. Participants described the team on a typical single shift as two to three RNs, which included themselves as a NGRN, and one on-call medical officer (MO) or a MO available through Virtual Health. Participants in MM 4 areas had a MO in the ED that was available to call on. The nurses they were working alongside may have been experienced rural practice nurses or they may have had minimal experience as a rural nurse. At larger rural sites the team may have also included an Assistant in Nursing (AIN) or an Endorsed Enrolled Nurse (EEN). In smaller sites sometimes staff from other areas of the health service, such as community nurses and Health Service Managers (HSM), formed part of the clinical team. Participants depicted being *hands on* where there was no time to stand back and learn which created stress and anxiety, particularity when there was little immediate hands-on support and direction available to them. Theme one, via two subthemes, *You can't stand back* and *That's everyone*

as a whole team, illuminates the experiences of NGRNs early in their graduate year. These themes outline the participants' experiences of their transition to practice in rural areas and the challenges that being part of a small team created when caring for the deteriorating patient.

4.3.1.1 Sub theme 1: You can't stand back

Participants spoke of the stress of being a key part of a small team, and the early expectations they felt were placed on them to perform in the rural environment. Participants described how when they were one of only two or three staff members in the facility where they were required to be an active member of the team in caring for the deteriorating patient. They would perform clinical skills that they had not attempted before and in some cases they had not seen before. Jo discussed her initial experience of working with minimum staff, feeling it impossible to accomplish managing a deteriorating patient with so few staff in the facility:

> *At the start, it was very nerve-wracking, it felt impossible for some, like, for two people to be able to accomplish this sort of stuff. Maybe towards the end of the year I felt better about it, after just seeing how the facility works… like we are working with just the bare minimum and stuff like that, it's a weird feeling* (Jo).

In Jo's rural facility, a Multi-Purpose Centre (MPC), two registered nurses covered both the general ward and the ED. In these situations, participants were expected to maintain their inpatient allocation as well as care for patients who came through the ED. In these cases, Jo described the importance of the senior RN's engagement in the deteriorating patients care otherwise the NGRN may end up leading the event. This was the case for Jo where she was left to care for a child having a seizure. Jo shared:

> [It was] *just the two of us in the building* [the participant and an RN]*, so we actually had no support staff at all, no one who could come and assist us, and I walked into a room with a convulsing 5-year-old and my senior registered nurse was not helping at all* (Jo).

While Jo managed to care for the patient safely until the MO arrived, Jo signified the importance of the senior RN on shift being sometimes the only other person to rely on and the impact not having this support has on the NGRN.

When participants discussed their educational preparation and prior experience to care for the deteriorating patient received during clinical placement experiences, they expressed that educational preparedness was minimal. Terri reflected on being relieved that no deteriorating patient occurred early in the transition year making the following comment:

> *If somebody had dropped a deteriorating patient on me in the first month* [of the graduate year], *I would have had no idea what was going on* (Terri).

A nurse educator was identified as a team member participants needed and expected to receive guidance and support from when caring for the deteriorating patient, however many did not have immediate or any access to a nurse educator when these events take place. Maree perceived that she did not have a nurse educator available to her as part of her team throughout her graduate year. In Maree's facility the educator's role was to travel to all sites within the area and Maree felt that she had minimal face-to-face educator support:

> *We didn't have an educator, we had the two weeks before we started orientation with her, but then we kind of never saw the educator again* (Maree).

Maree described the support she received as one phone call from the nurse educator asking how she was going to which Maree attempted to discuss her stress with the educator but only received a comment "*Oh, okay, you'll be fine".* Sia also experienced infrequent access to a nurse educator. Sia was not employed on a new graduate program and felt that she was not afforded support from an educator voicing her disappointment:

> *We have an educator but then even the educator sometimes is doing night shift as well so we don't have a, like other big hospitals, we don't have an*

educator all the time…it would be better if we had like a proper educator through the day so we can easily approach them (Sia).

Minimal access to a nurse educator heightened the anxiety that participants felt around the expectation in their ability to manage the deteriorating patient in rural areas. As participants quickly learned, they had to get in and *get their hands dirty* when a patient deteriorated despite feeling unprepared which resulted in the feeling of *needing more hands* and longing for greater support. Maree describes, *another set of hands would've been ideal.* During an experience of patient deterioration, Maree's patient required intravenous cardiac medications which she had never given before. Maree explained that because of the limited clinical staff available, and often no nurse educator, there was no opportunity for practice support for clinical skills. Maree had to be hands-on and undertake the task, even if she was not confident in what she was doing. Although Maree explained about her desire to first be able to stand back and watch:

You can't because there's only two of you there. If you need hands-on, then it's hands-on. You can't stand back and be like I'll watch you do this (Maree).

Rachel had the same desire to first be able to watch a procedure or an event before participating or doing it herself. Rachel shared:

[It was] *a very small team, so I had to get in and do it and just standing back and scribing* [in a cardiac arrest], *is not an option. You have to get in and get your hands dirty, it doesn't matter how scared you are, you just do it* (Rachel).

Scared was a term used by a number of participants when working in a small team. Ella described feeling scared that she may not have the ability or skills required leading to further patient deterioration while in her care. *I was nervous… I was scared that I might not be able to handle the situation and it might get worse* (Ella). Sia also used the term *scary* when describing how she was not ready to detect signs of deterioration in her patients but was required to do so because she was the only RN on a shift in her ward. Sia recounts how she had a patient who deteriorated during her

shift, feeling that she did not detect the signs and had no one to oversee her or check her assessments and decisions:

> *I don't have that experience or knowledge; I missed the signs and because I missed the signs, I felt bad and then scared…. I am scared because I can harm the patient, not intentionally but by not picking up the signs* [of deterioration] (Sia).

As participants adjusted to working in small teams in rural practice, ongoing challenges included minimal available clinical staff to provide support when a patient deteriorated and minimal access to a nurse educator. Participants expressed they would have liked to have been able to observe others care for the deteriorating patient and the complex procedures that can occur, rather than being required immediately to be a key and significant part of the small team managing deteriorating patients.

4.3.1.2. Sub theme 2: That's everyone as a whole team

Participants in this study expressed that the small team of just two or three RNs could be a challenge and so sought any other available support to widen the team. Team members to provide hands on support were found in EENs and AINs, where they were employed in the facility, who were highly valued by participants for their skill and knowledge in the facility and their experience of rural practice. Thus, these team members were invaluable during an episode of deterioration. Participants shared how AINs were a key part of their nursing team in providing the extra hands and assistance needed. Sia worked as the only RN on an aged care ward so relied heavily on the AINs for direction and support. Sia perceived the AINs to be more senior than her because of their greater rural nursing experience and organisational knowledge, so found it somewhat challenging to lead:

> *I feel like all my AINs and ENs, they are more experienced than me, so I can't really ask them to do something because I'm more junior to them, so it's very hard because they are more experienced* (Sia).

Rachel recounts an experience where she arrived for her shift in the middle of a patient having a cardiac arrest. She detailed how she felt completely overwhelmed

at what was occurring. However, the support she received from the Enrolled Nurse (EN) who was able to recognise Rachel's anxiety alleviated some of her stress. The EN asked Rachel to assist her in an area that Rachel was confident and felt useful in and this allowed Rachel to gather her thoughts. Rachel found the separation from the situation that the EN had facilitated allowed for her to become calm:

> *My heart was pounding. I didn't even know where to start, and I had an incredible EN who saw the look on my face and took me away to give medications because she was not medication competent, which gave me the opportunity to have a couple of breaths* (Rachel).

Jo described similar feelings of when at six months into the graduate program, she was feeling *terrified* when she was required to take the lead in an event after the senior RN had left Jo alone in the ED with a sick paediatric patient:

> *What made up 'terrified' for me was I actually had no senior leadership there. For me, I felt like I was put into the leadership role because I had me and two AINs and they were working to help me. I was asking them to do something to help me, and I had no one, no one to sort of look over that. I felt like I was running that on my own. It wasn't until the doctor got there that I felt that I actually had adequate support that could potentially save this kid if he continued to go south* [deteriorate] (Jo).

Support for Jo during this event came from the experienced AINs as they arrived for their shift and once the MO arrived Jo described feeling as though she had adequate support to manage the patient.

Participants from smaller rural sites, identified that they were able to seek support from nurse managers for care of a deteriorating patient with HSMs, Nurse Unit Managers (NUM), and community nurses during weekday business hours. Jo reflects on occasions when the team was expanded:

That's everyone as a whole team, right from the community nurses that don't work on the floor to our AINs who just do about everything. They helped run that department; they really did (Jo).

The experienced nurse managers and community nurses were able to assist with providing patient care or advice on escalation of care. However, a point that was highlighted by participants is that they expected to experience greater stress and anxiety managing the deteriorating patient outside of business hours because they knew there would be limited healthcare personnel available to provide support. Terri described an event of patient deterioration which highlighted the importance of the wider team and the effect of a greater number of available staff stating *it was the perfect day for it*. Terri clarifying that the perfect day for them was when there was access to a good number of nursing, medical and allied health staff for support as opposed to days when there were limited number of staff available or onsite. Terri described:

My NUM was on a management day [working in the office not on the floor], *the doctor, although he wasn't there… he was at work* [in his Practice] *so he was sort of taking calls, we had pathology there…we had radiology there…. I felt very supported but as I pointed out, I think if it were a Sunday afternoon, it would have been a completely different story* (Terri).

Jo reflected saying that being able to call on the HSM to assist when a deteriorating patient requires care, is a great relief and gave a sense of added security when they were in the facility:

When we had our support staff in the building, if we had an educator, if we had a community nurse, if we had our HSM, that's when we'd call on these people and they would be able to come up and do our medications for us, or they'd be able to look over a patient for us in ED while we step out to the ward. *In terms of weekends and stuff like that, it was harder to manage* (Jo).

In many situations when a patient deteriorates, a Virtual Health team added to the number of staff in the team. However, even with Virtual Health expanding the team,

the physical number of clinical staff present in the facility was still just two or three staff of varying qualifications and skills. This required the NGRNs to perform all roles which included complex procedures which were described as a scary experience for participants where there was a high level of anxiety around not having a MO physically present in the facility. New graduate registered nurses were often required to perform clinical procedures that they were not experienced with, for example Intra-Osseous (IO) cannulation. In these circumstances medical staff remotely guided participants through the procedure. For example:

> *It's quite scary because you don't want to do something wrong. I know they're watching you, but they're not physically there. Putting in access* [Intravenous], *if I accidentally punctured something … but they're not physically there to help you* (Maree).

New graduate registered nurses must also be the eyes and ears for medical staff through Virtual Health and look across the care of the patient holistically and be able to convey to the medical staff what they see, hear, and feel. Communication with the MOs through Virtual Health was found to be scary and added to the stress of the emergent situation, however, a supporting MO by Virtual Health can alleviate this stress. Rachel discussed her experience using Virtual Health with a medical officer from the Royal Flying Doctors Service (RFDS) for support in managing a deteriorating patient:

> *So, the doctor's talking me through it* [patient care management] *over the headset, and clearly could see on the camera that I was really quite scared, and didn't know what to do, so he was very cool and calm about it, and directive* (Rachel).

In this situation, Rachel was being guided through managing a patient with complications around an inserted Laryngeal Mask Airway (LMA), discussing with the MO about the further care required. Rachel then had to follow on with the care of the patient performing complex procedures such as insertion of a naso-gastric tube while an LMA was insitu and insertion of an Intro-Osseous device, doing so successfully. Maree describes the valuable support and leadership received from the Virtual Health

team and how it made her feel the presence of a larger team, turning an overwhelming and stressful experience with little leadership and direction into a well-managed experience:

> *I had a doctor in my ear* [Virtual Health] *and then the paramedics came and helped. There was a larger team there so felt ok* (Maree).

Participants utilising Virtual Health appreciated the clear direction and detailed instructions given to them through the headset. Maree stated it makes the communication with doctors easier and less *scary* as they are not physically present with them, however, feeling less ok about attending to advanced clinical skills guides by Virtual Health. Overall, Maree found the use of Virtual Health to be *pretty cool*, feeling *okay* talking to the doctor because she felt the doctor was very clear with their instructions and discussions. The experiences of using Virtual Health during the care of a deteriorating patient were positive, however, there was stress and anxiety associated with utilising this unfamiliar service.

4.3.1.3. Summary

The participants all transitioned into a small rural team for their new graduate year. Working in such a small team during episodes of patient deterioration was unfamiliar as was the use of Virtual Health to assist in the management and stabilisation of a deteriorating patient. Participants felt overwhelmed with their role in caring for the deteriorating patient as it required them to get in and *get their hands dirty* and, in some instances, take the lead in managing deterioration. Where there was minimal direction and/or hands on support from a senior nurse the participants described their experiences as terrifying or frantic. However, the wider team that included AIN's, EEN's, nursing managers and clear and directive medical support via Virtual Health, had a significant and positive impact on their experiences in caring for the deteriorating patient.

4.3.2. Theme 2: Practice support for managing deterioration

All participants were able to recount experiences of caring for the deteriorating patient. In reflecting on their individual experiences, as expressed in the subtheme *you can't stand back,* there was a common theme of desired practice support by experienced rural nurses. During early experiences the participants were seeking a more directive and structured approach to support, however, as their confidence and skills developed, they sought support from senior RNs that allowed them to take the lead in the patient's care enabling them to gain confidence and grow as practitioners. The participants' experiences were positively influenced by the support that came from experienced rural RNs who worked alongside them each day, as the participants felt senior RNs would gradually trust participants to take greater care roles when a patient deteriorates. These roles included care planning and liaising with other healthcare professionals via Virtual Health. However, an element that required the participants to continue to reach out for greater support was the feeling of being *out of my depth,* often as a result of needing to be able to care for a wide variety of patient presentations with varying acuity which comes with the nature of the rural environment. Despite the NGRNs' confidence improving, they were never comfortable with how they performed during one single incident of recognising and responding to patient deterioration because there was no pattern of recognition in patient cases, or no opportunity to get used to repeated case presentations. The importance of the senior RN's expertise in these varied case presentations was evident in the participants' narratives which is displayed through two subthemes, *someone to just say what's needed* and *I am here to fall back on.*

4.3.2.1. Sub theme 1: Someone to just say what's needed

With minimal staff rostered on a shift in their rural health services, participants felt that where the senior nurse was not engaged in patient care, was reluctant to take a leadership role, were new internationally trained nurses, or were inexperienced with rural practice, the nature of their experience with managing deterioration became an overwhelming and adverse experience. Jo experienced managing a child with a seizure where Jo perceived the senior RN to show little leadership and direction and no practice support and appeared unsure of how to proceed with the care of the child:

> *What sort of made it not my favourite day was the registered nurse I was working with was sort of terrified as well. So, I wasn't getting much leadership in that sense* (Jo).

Jo also stated that the nurse she was working with shared "*I've never done that before. I froze",* so just like the NGRN participants feelings of being out of their depth, so too can the senior nurses.

Jo reflected and described on her experience where as a NGRN with just a few months experience, she ended up leading a team that consisted of AINs and Jo because the senior RN at the time was overwhelmed by the situation and had left the Emergency Department. While Jo was able to contact the on-call MO, Jo was on her own with this team for a period of time until the doctor arrived onsite. As Jo had little experience in caring for the deteriorating patient, and further, no experience in paediatric patients, Jo described this experience as terrifying. After this experience, reflecting on what was needed*,* Jo described *I just wanted an educator to walk out and just sort of take over really* (Jo).

Similar to Jo's experience, Maree shared that one of her first experiences of the deteriorating patient was *scary* because she was alone in the facility with one other registered nurse and no other clinical staff. Maree describes an event where a man was brought into the ED after a fall. With the only other RN on the shift not familiar with the facility, Maree felt the situation was confronting:

> *He fell, they don't even know how many days, he came in and he had a prior stroke so he couldn't really talk or express anything, and he couldn't really tell us where his pain was…that was a bit confronting… He also had a broken hip, one of his legs was broken as well. It was really full on, being out there we didn't have any doctors, so it was literally just me and the other nurse. Because there is only two of us on, which was pretty scary as well because I had no idea what I was doing* (Maree).

Maree went on to further describe her experience with this deteriorating patient as somewhat *frantic* with multiple tasks underway in attempting to stabilise the patient

and prepare them for an urgent medical retrieval out of the facility. Maree described feeling as though she might be in the way or do something wrong*, I'm just going to focus here so I don't mess up anything she* [the other RN] *does*, keeping her focus towards essential patient care. On reflection Maree believed greater control of the situation and more direction/delegation was needed, *someone to just, like a team leader, someone to just say what's needed to be done (*Maree). Ella told of how she was very nervous and how the senior RN just gave her simple instructions in the care of her deteriorating patient, *she helped me, and she told me what to do* (Ella) which assisted Ella to feel confident in her patient care.

This experience for Maree however, changed to a more positive experience when a shift change brought in a different senior nurse. While the start of this experience for Maree was frantic and chaotic, when the evening staff arrived for their shift the evening senior RN took over the care of the patient with Maree reflecting, s*he* [the RN] *knew what she was doing, and she just made the environment so much less stressed* (Maree). Maree observed that even the patient became calmer. Maree explained:

> *I felt like the environment just became calm. There was no chaotic running around. The patient became calmer. You could tell he was like "Okay, this nurse she knows what she's doing". The energy just felt calm to what it did* (Maree).

Like Maree whose experiences improved when a senior RN provided guidance and calmed the work environment, Jo had a second encounter later in her graduate year involving a child with asthma. Jo expressed this was a positive experience for her growth and confidence. In comparing the two experiences, Jo reflected on the second experience as being *a lot better. Different staff member that I was working with* (Jo). Jo identified how different an experience can be dependent on the senior RN and their skills in providing support and guidance. Jo further reflected that the experience of working in a rural facility taught Jo the importance of working with and making use of what you have and prioritising:

If that job has taught me anything, it is the importance of prioritizing of care, and you can only work with what you've got (Jo).

In Jo's second experience of managing a deteriorating paediatric patient the senior RN took the lead and ensured Jo was aware of all that was occurring, supporting Jo in her role in the patient's care. Jo describes how they shared the workload, working well as a team under the senior RN's direction and leadership. Jo reflected on this experience:

I felt honestly fine… I felt like the registered nurse I was working with was all over it, she dealt with the scenario perfectly fine. She was keeping me fully involved so I was there helping her (Jo).

Rachel also had positive experiences in caring for a deteriorating patient, describing her experiences as being excellent with a fantastic level of support and leadership where the RNs were dependable:

There was always a senior nurse on the shift in charge. They had a minimum of 15 years as a remote area nurse, so really experienced... There was always support there (Rachel).

Rachel reflected on how the assistance of these RNs with their direct and timely support, were responsible for teaching her how to manage a deteriorating patient, she had someone to just say what was needed. Claire also had positive experiences describing feeling *fairly ok* when managing deteriorating patients because she always had someone available to direct her in her care and come and assist:

I think it just goes back to being in a respected, supported environment because I know that if something did go wrong, I had people that I could call that would come (Claire).

For example, Claire recounted an experience of a deteriorating maternity patient later in her new graduate year. A 36-week pregnant woman presented having an epileptic seizure and had extremely high blood pressure. With this presentation

Claire described feeling incompetent and unskilled in relation to maternity, which highlighted the importance of having skilled clinicians on hand:

> *I felt extremely incompetent. I was just like so out of my depth when it came to maternity… some people* [RNs] *don't come across that ever, it was pretty confronting* (Claire).

Claire was able to receive direction from one of her senior and experienced nurses. Maree also experienced feeling out of her depth, *I don't know if I'm out of my depth here because I haven't done this before* (Maree), and therefore recognising the importance of a senior RN's support. Maree described how each patient that presented was new to her in terms of the wide variety of conditions that presented which lead to her feeling out of her depth. Rachel also encountered the wide variety of patient presentations in the rural facility where she was employed:

> *We had quite significant deterioration including paediatrics, severe disability, cardiac arrest, STEMIs, NSTEMIs* [Myocardial infarcts]. *You name it. MVAs* [Motor Vehicle Accidents]. *You name it, it came through the door… Quite a lot of alcohol-induced pancreatitis, severe mental health with hallucinations and psychosis* (Rachel).

Rachel felt the pressure of needing to have skills and knowledge across many areas. With this wide variety in patient presentations, the participants depended on the senior RN for their expertise and experience. When a senior RN took the lead and provided direction to the participants with clear roles, responsibilities and a clear plan of care, participants felt these experiences to be positive. When timely support and direction was not received the participants expressed feelings of overwhelming stress which added to their existing feelings of fear and nervousness about the outcome for the patient.

4.3.2.2. Sub theme 2: I am here to fall back on

Participants' experiences illuminated how they developed a sense of confidence with caring for the deteriorating patient later in their new graduate year. At this point participants found that a valuable approach to learning was to lead in the

deteriorating patients care where the RN would stand back but maintaining a supportive role with one-to-one mentoring. With this approach the participants felt a sense of trust and felt competent in their practice. Jo appreciated when the approach to support by the RN allowed Jo to develop skills while still having a level of dependence and reliance on the RN. Jo shared:

> *Someone that could say "go and get involved as much as you want, I am here to fall back on" or "I am here, we'll go through things together, we'll make sure we are both involved" … the team leader was working with me it was my patient, and then just supporting me through that whole process, overseeing it* (Jo).

Jo explained how the senior RN created a learning opportunity where Jo was able to enhance her skills and confidence in care of the deteriorating patient. The RN overseeing Jo, provided guidance but allowed Jo to undertake the assessments and make the clinical decisions promoting confidence. Rachel also highlighted the benefit of an RN standing back and providing support:

> *The senior nurse was able to stand back. And kind of just watch from a distance, so other than triaging, most of that process was mine* (Rachel).

Rachel described how she had an allocated clinical supervisor and mentors within her Transition to Practice Program and having life experience and experience in the health field, she knew the importance of the provision of this type of learning support explaining:

> *I understood the importance of those people, and having a network of people, and learning about people and what their different skillsets were, and know who to go to when, for what* (Rachel).

Participants experienced positive feelings and a sense of mastery and achievement when the senior RN had the trust in them to stand back and have them take the lead with decisions and/or assessments with minimal supervision. Participants all felt a sense of pride over this development of trust. This idea of trust

appeared in several of the participant's narratives highlighting its importance. For example, Claire's experience where a patient had a ST Elevation Myocardial Infarct, once the patient was stabilised, the senior RN advised Claire that she was going to leave to go to the inpatients area to do the medications thus leaving Claire to manage the patient. Claire explained:

> *I was happy with that because then I got to speak with Virtual Health and manage that patient* (Claire).

Claire describes the support of the RN as *they had trust in you to let me go a little bit.* Claire felt pride that she was able to manage the patient's deterioration with the support of Virtual Health, however, Claire still had the opportunity for close supervision of the senior RN. Maree noted the significance of the RN's trust and ability to provide effective learning support through strategies such as standing back allowing them to do things with minimal supervision, compared to RNs who show no trust:

> *She* [the senior RN] *would trust me to go and make up the antibiotics and then bring them back, whereas the other nurse, she wouldn't let me do anything* (Maree).

Rachel surmised the importance of this approach to provision of support and development of trust:

> *With that support, I started to grow… starting to slowly back away from that safe environment. They were always still watching, always still there to support, never not there to support me, but allowing me to grow as a nurse* (Rachel).

Rachel clarified that at this point the clinical reasoning process came easier, second guessing herself was less and it all *became much easier, and that kind of stuff started to flow*. Rachel further detailed an experience where nine months into her graduate year a young girl with sepsis presented to the ED. Rachel at that time felt she had comprehensive assessment skills and was a lot more confident enabling her to put the information together, being able to think critically and liaise with the RFDS:

I'd started to kind of put things together. I had a good understanding of assessment skills in deterioration, and starting to put things together, and a bit more confident. I'd got to know the doctors on the RFDS, and the staff, too (Rachel).

By this point, she began to know the staff and the processes to care for a deteriorating patient. Rachel had recognised the importance of building networks, knowing the team, and gaining support. This enabled her to effectively recognise and respond in these experiences and communicate effectively with the team. Rachel surmised the profound impact of her team on her experience as a NGRN in a rural area:

I had exceptional support from all of those senior nurses, whether they were agency or permanent staff, which absolutely harboured and supported me through that process, and pushed me when I needed to, and told me to hold up when I needed to, too, and allowed me to, under supervision grow my skills. I had an amazing experience as a grad, and I'm incredibly grateful to the staff that looked after me (Rachel).

As the participants progressed through their new graduate year, they developed confidence and skills to care for the deteriorating patient. With the support of senior RNs who possessed the knowledge and skills needed to care for the deteriorating patient, the graduates were able to begin to develop a level of independence in managing this care. They felt that they had gained trust from the senior RN in their abilities and experienced a sense of pride for reaching this milestone in their practice. For ongoing support of the NGRN, supervision to lead in the case of a deteriorating patient was what was seen as helpful. This was a key factor that saw growth and development of confidence in the participants.

4.3.2.3. Summary

Early in the transition period, or when they had an unfamiliar case presentation, the participants desired clear guidance from senior clinicians. When this was not available to participants, their experiences were overwhelming and caused stress and

anxiety, whilst looking for support. As the graduates developed their confidence, they felt that support where the RN stood back and allowed them to lead and make decisions was an experience which allowed them to develop as an RN. This level of timely support provided to participants was what influenced their experiences, and while they still had a need for senior RNs or clinicians, they did not need the same level of step-by-step direction when caring for a deteriorating patient.

4.3.3. Theme 3: The road to confidence

As participants gained experience in the care of a deteriorating patient, they developed insight into their key role in the team and the importance of skill development and ongoing education for safe practice. Participants expressed the importance of reflection on their practice and past events and reflected on what education and skills they needed to be able to manage the deteriorating patient safely and efficiently. Their recognition of the importance of ongoing education deepened as they became more knowledgeable on their role as a rural practitioner, identifying that self-directed learning was crucial not only for their development but for safe outcomes for the patient. Further, the senior RNs on the ward were those that provided the most education to participants and were seen as highly valuable for education, more so than nurse educators. Through two subthemes, *I want to learn teach me,* and *look how far I've come,* participants' narratives reflect on how this education, along with debriefing and reflective practice, assisted them to determine their capabilities when they doubted themselves and develop a sense of achievement in their practice.

4.3.3.1. Sub theme 1: I want to learn, teach me

To fulfil their role in caring for the deteriorating patient, participants spoke of the need to be self-directed and self-motivated in their learning. This need was identified from orientation, where orientation days to the facility did not meet the expectations of some participants in preparing them for their graduate year. Some of the NGRNs in this study felt that the orientation process was used mainly to cover the mandatory competencies. This is rather than other, more focussed knowledge specific to the rural environment such as escalation of deterioration in the rural health setting. Sia, who was not in a transition program but rather began working as the RN in an aged care ward in a small hospital, explained that the orientation did not prepare her or support her for the required work:

> *Not having any experience in the hospital ward or aged care it was a big thing….I only had 3 orientation days….it was very scary, I didn't know what to do* (Sia).

Maree described her orientation as being *a lot of things just to get signed off.* Rachel however, found her orientation different from Maree's as it was designed to

support the NGRN and provide all round education to prepare her for all aspects of her role. Rachel reflected on how she was allocated a clinical supervisor and mentors and was introduced to the facility with a well-structured and well supported orientation. *The orientation process was really quite good. We were set up with supervisors and mentors the day we arrived* (Rachel).

Following orientation, education opportunities were predominately provided via online learning platforms with participants speaking of the motivation to get education packages completed:

> *We do tend to do a lot of the* [name of online education service] *pathways and things like that. I'd probably done 10 or 20 individual education things about deteriorating patients and monitoring* (Terri).

Participants reflected on being self-motivated to get involved and experience as many cases of patient deterioration as possible, observing the process and reflecting on the clinical decisions involved were recognised as important to compliment the online learning. To further their skills and knowledge, participants described how they would ask to spend time in the ED where they were keen to be part of the patient cases. Jo explained:

> *I would listen to their triage, just watch the process, just to see how it happens…when we got the phone call from our doctor to say he was sending someone up I jumped into ED with my senior registered nurse ……. just to find out what's going on* (Jo).

Like Jo, Terri gained exposure in the ED. Terri explained that the ED in the small hospital they were employed in, is where they were able to see more acutely unwell and deteriorating patients:

> *I'd started picking up extra shifts in the emergency department so I could manage a deteriorated patient—oh, well, more likely manage a deteriorating patient, but with the assistance of a doctor just there and also senior staff members, where this is what they do every day* (Terri).

Most participants in this study found opportunities for working in the ED, Terri in particular relocated work environments to gain this experience. Some participants worked in a facility which had a separate staffed ED like Terri and Ella, others were in a MPC with an unstaffed ED covered by the nurses on the ward. The NGRNs in these facilities would shadow the senior RN in the care of patients that presented in the ED describing how they needed to ensure they knew where resources were, how equipment works, and getting signed off on as much training as possible. If they did not 'play' with the equipment the NGRN was scared of using outside an emergent event, it was *far scarier than actually playing with it beforehand* (Rachel) as working in a small team required them to be instantly involved in the management and familiar with use of equipment.

The participants described early in their graduate transition period they had to gain critical technical skills for managing deteriorating patients such as Advanced Life Support (ALS) and other clinical procedures such intravenous cannulation and intra-osseous canulation. This aided in preparation to work in rural practice where skill mix and low staff numbers required these skills. This enabled participants to feel useful and more prepared *I did my ALS by 12 months, and then once I'd done my ALS, I'd done so much triage* (Claire). The participants who experienced a cardiac arrest were acutely aware of the skills required of RNs to manage such patients and the graduates worked hard to achieve these skills. Some participants, however, needed to assert their need for education, but often did not have the confidence to do this until part way into their new graduate year. However, as they gained insight into their need for further education, they began to request more formal education opportunities and take greater initiative by also requesting to work more in the acute areas of the facility. For example, staff in Maree's facility were not proactive in providing education opportunities for Maree and without self-motivation and determination, minimal education opportunities were offered. As Maree asserted:

> *At the start they didn't really want to teach, but by then end of it I was like "no I want to learn, teach me"* (Maree).

The participants identified the need for RNs working on the shift with them to provide education and skill development because nurse educators were not readily available to participants. While Maree had some challenges in receiving education from her senior RNs, Rachel explained how the experienced senior nurses really helped to develop her confidence:

> *The support of the senior nurses that went "you're going to do this" or "you're going to take this role today", or "I want you to start thinking and talking to me about what triage category you're going assign, what you're going do based on very little information before the patient comes in, what do you need to set up?"* (Rachel).

Rachel further described her experience of the education that she received to develop her skills to more advanced skills and improved critical thinking:

> *Myself and the senior nurse would triage, I would cannulate… once I grew my skills a little bit more, they would allow me to assess, work out what I thought was wrong with the patient, what the treatment plan should be and then contact the RFDS who were our rural consult and speak to them and put together a treatment plan* (Rachel).

Participants were self-directed in their learning about care of the deteriorating patient. In addition to online education, with new insight into the requirements of the role as a rural RN and their understanding and concern for patient safety, participants sought education from the senior RNs. However, while some participants received education from their colleagues, for others this was another challenge to request. As the participants began to gain experiences, develop insight into what they needed and being proactive in meeting these needs, they began to gain further confidence in caring for the deteriorating patient.

4.3.3.2. Sub theme 2: Look how far I've come

The pressure on the participants to be a skilled member of the team and a key part of the management of the deteriorating patient enlightened participants on the importance of learning strategies for growth such as questioning, feedback, debriefing

and reflective practice. Rachel for example, was a strong advocator of the use of reflection and used every opportunity she had to develop her skills through reflective practice. Rachel constantly was checking in with herself and reflecting on what occurred, what could be done and how she can learn and using this to keep her spirits up:

> *That reflective practice was so important because when I was feeling defeated or down, I could go back through that and go "look at how far I've come, I didn't know what to do there but now I don't even need to think about it"… I've come this far* (Rachel).

Rachel explaining how reflective practice opened her eyes to the knowledge and ability she did have:

> *After doing reflective practice, I could actually see where I had kind of transitioned out of that almost grad/student kind of learning person, and I'd started to kind of grow and get comfortable in stepping up a little bit more. It was probably a point where I've gone "actually, you know what? Things are scary but I can actually work through this"* (Rachel).

Rachel was one participant who was able to pinpoint a turning point in her transition year where she felt she had the skills and confidence to manage a deteriorating patient. Rachel had previous experience in the health field and came into the profession knowing the importance of reflective practice.

Participants recounted how senior RNs would use questioning to foster the participants practice and knowledge. Participants felt this was beneficial as it challenged them to grow their skills and critical thinking, prompting reflection on what learning they required. Maree reflected on an experience of a deteriorating patient being retrieved to a larger facility and stated:

> *She* [the retrieval nurse] *came in and asked for a handover, so that was really good for me to be like "hold on, there is actually a lot more going on here than what I have been focussing on". Being able to give that handover to that second*

nurse and then her being like “well have you done this? What’s this look like? What are we doing now?” I was like “oh ok”. I don’t know what I’m doing but I need to (Maree).

Being questioned by their senior RN prompted reflection on their experience where for Maree it made her consider that she needed to take a more comprehensive view of her deteriorating patients encouraging critical thinking. This experience saw Maree gain insight into her ability and what she needed to further develop her skills in, such as the process of assessment and critical thinking. Terri also could see her development through the transition year as she reflected on how she could make decisions and be more confident to assert needs and advocacy for patients:

I used to just rely upon what they'd [the doctor] *say back, whereas now I'm sort of saying, "Here's what I need from you, as the treating doctor"* (Terri).

Reflecting on experiences of the deteriorating patient as they occurred, saw Terri develop this confidence and recognise the importance of advocating for patient needs. One case Terri reflected on was that of a septic adult patient who deteriorated throughout the day. While Terri kept informing the MO of changes in the patient’s condition, Terri felt the MO was not concerned despite the patient being acutely unwell. Reflection had Terri consider that the graveness of the situation was not acted on early enough or well portrayed by Terri where she did not assert herself or advocate well enough for the needs of the patient*:*

I could see it, but I couldn't sort of portray it to the doctor… I don't know whether I just didn't have the urgency to act upon it earlier. I definitely took away from that, that anything I'm concerned about I just sort of jump on a lot faster rather than try and manage on my own (Terri).

Claire also had an experience where on reflection she wished she could have been more assertive with a senior RN and used this experience to become more confident in doing so. In Claire’s example the RN Claire was working with, and Claire, had a difference of opinion on a triage score, where the RN directed Claire to document a different score to what Claire had assessed. Because Claire was the

treating RN the documentation about the patient's triage score was under her name and although Claire was concerned, she did not have the confidence to speak up:

> *She was like, "No he's fine, he's stable, he's a 2". I had a really conflicted view on that because of his obs. I didn't say anything because obviously the nurse was my superior….I just reflect on that and just wish I had said…had the confidence to say "you know what, it's under my name, I want it as a 1"* (Claire).

For other participants, reflective practice often originated through a post event debrief, and this was for some, the moment where sudden insight associated with care of the deteriorating patient was gained. For example, Maree described how after the event of a patient deterioration, she realised what care should have been given but at the time she was not able to consider such options. The senior RN called Maree for a debrief the following day saying "*this is what we could have done. You were great but we could have done this"* Maree then feeling like she knew what to do next time but also that they managed the care as best as she could. In the experiences of the participants, debriefs were done on a continuum from bedside conversations and follow up phone calls, to formal group debriefs. Jo had a more formal debrief after an experience of a patient deteriorating. Jo could not recognise her own positive contribution to an event until she had a chance to reflect on the event and receive feedback from others. Jo shared:

> *I didn't feel very confident or like I'd done a good job. It wasn't until after we had a bit of a debrief. That I felt like I'd actually done a good job. The debrief was actually very beneficial* (Jo).

The use of Virtual Heath also assisted the participants reflection and professional growth through receiving feedback from the Virtual Health team on their practice. Feedback received from the Virtual Health team following an experience created a sense of accomplishment in the participants. The participants expressed that they questioned themselves and whether they had been effective in their care, but feedback from the Virtual Health team allowed them to see their positive contribution within the team and grow their confidence. For example, an experience that stood out for Maree was the Virtual Health team calling her the next day to provide feedback,

the next day Virtual Health called, and they just wanted to be like "look that was actually really good" (Maree) where they knew they had a new graduate and wanted to express how well Maree had performed. Maree clarified saying:

> *That was a little bit positive for me… yeah because they pointed out that I actually knew more than I thought I did, which was reassuring for me that I can actually be a nurse* (Maree).

Maree greatly valued this feedback feeling like she was able to care for a deteriorating patient. Rachel also reflected on her growth and development that the support provided through Virtual Health allowed:

> *I had the RFDS Doctor on the phone and on the camera supporting me through that* [insertion of an IO]. *I think that was probably the point where I could stand back and go, I'd gone from that tunnel vison to that more global thinking* (Rachel).

Initially, participants felt they were unprepared to manage the deteriorating patient and that there was a great responsibility for the NGRN to be able to do this in the rural area. However, after gaining experience and reflecting on their growth and practice, participants had a sense of validation in relation to decision making, and provision of care allowing them to grow as practitioners. Ella summarised; *I was nervous for a while then I started to pick it up* (Ella). The participants all described the use of learning supports such as debriefing, feedback and facilitated reflective practice that helped them to be better prepared to provide care for a deteriorating patient.

4.3.3.3. Summary

The participants, as NGRNs, went through a journey of development and confidence in caring for the deteriorating patient. In their early encounters there were feelings of stress and of being overwhelmed in the small team in the rural facility. Participants' experiences of deteriorating patients were wide in variety from patients with general medical conditions and paediatric patients to deteriorating maternity patients. However, with time and support the participants developed insight and an understanding of their role and the provision of safe patient care. Ongoing education

became a priority where the participants were self-driven to complete online training packages and sought opportunities in areas such as ED to gain experience providing care to deteriorating patients. Reflective practice, often prompted through an experience or debriefing, were strategies the graduates used to develop and grow technical skills, critical thinking and confidence and facilitated the participants in seeing where their professional growth had occurred in being able to manage a deteriorating patient.

4.4. Chapter summary

This chapter has presented the findings of the participants' experiences of caring for deteriorating patients in rural areas during their first 12 months of practice. Three themes emerged that illustrate their experiences. The first theme, *First encounters - Transition to the rural team*, shared participants' experiences of their first encounters of patient deterioration and how the small team in rural practice influenced these experiences. This small team saw the participants feel overwhelmed being required to be immediately hands on with complex procedures. In looking for support to assist with these challenges, participants found value in AINs, EENs and nurse managers and other health professionals such as MOs. Several participants had adverse experiences due to the lack of practice support from senior nurses which is portrayed in theme two *Practice support for managing deterioration*. However, participants also experienced patient deterioration events where they had practice support from more experienced colleagues which positively influenced their experience. In the final theme, *The road to confidence,* the participants shared insight into their role as a rural practice nurse and spoke of being self-motivated to continue their learning and education to enhance their care of the deterioration patient. Participants learnt and utilised reflective practice to reflect on their journey of caring for the deteriorating patient as a NGRN. The next chapter will discuss these findings in relation to the current literature.

CHAPTER 5: DISCUSSION

5.1. Introduction

Registered nurses in rural areas work with a level of independence that requires broad knowledge and skills. There is also a requirement to assume leadership roles, be efficient in multi-tasking and be able to switch clinical focus quickly (Pavloff et al., 2017). For rural NGRNs, a vast amount of knowledge and skill acquisition must occur within their new graduate year. Along with managing their transition to professional practice, NGRNs in rural areas must also manage the transition into this unique environment where they are required to 'dive in the deep end' and manage deteriorating patients with a level of independence despite feeling unprepared. The findings of this study revealed how NGRNs felt unprepared to care for the deteriorating patient in the rural environment. Small teams required NGRNs to be hands on even when feeling inexperienced, and with less opportunities for education and senior nurses for support, this can leave the NGRN frightened and overwhelmed. However, with practice support through the new graduate year, participants developed a sense of confidence and achievement. This chapter will summarise and discuss the study's key findings regarding the experiences of the participants in care for the deteriorating patient in rural areas in relation to the current literature and highlights the implications of the findings associated with the need for greater preparedness, education, and support.

5.2. Undergraduate and transitional preparedness

This study found that participants were unprepared to care for the deteriorating patient within the rural environment. Previous literature has identified NGRNs unpreparedness to care for the deteriorating patient (Della Ratta, 2016; Herron, 2017; Purling & King, 2012; Sterner et al., 2019), however, these studies have not been undertaken in the rural context. This study extends on current knowledge highlighting that the unpreparedness of NGRNs is exacerbated due to the challenges often associated with the rural practice environment such as small teams, less hands-on support, and the use of Virtual Health for which new graduates were not prepared for, nor had they experienced.

The findings of this study suggest that experiences of patient deterioration requiring complex care and clinical reasoning occurs for NGRNs within the very early days of professional practice for which they are unprepared. In a study by Herron, (2017) it was found that student nurses are not well exposed to situations to develop their clinical reasoning skills leading to NGRNs who have continuing difficulty with these skills on entry to practice. While NGRNs may have some confidence from undergraduate education in clinical procedures, Calleja et al., (2019) similarly found that NGRNs do not feel well prepared for skills such as clinical reasoning and communication, needing significant development for safe practice. Adding to this, most of the experience NGRNs have in making clinical decisions has been done under an instructor or preceptor (during undergraduate clinical placements) who guides and ultimately makes the decision and takes the responsibility (Herron, 2017). The report Simulation in Nursing and Midwifery Education (Martins et al., 2018) published by the WHO, discusses tertiary education providers and their use of simulated learning opportunities to specifically focus on the recognition and response to patient deterioration in nursing curricula, to expand on the opportunity for skill development.

The current study also found that NGRNs are unprepared for rural practice. This finding resonates with past research (Calleja et al., 2019; Graf et al., 2020; Lea & Cruickshank, 2015) where it has been known for some time that NGRNs are unprepared to enter rural practice. This highlights that undergraduate nursing students need exposure to working in rural areas. It was identified in this study that NGRNs remain unfamiliar with rural nursing despite the literature advocating for rural experiences as a component of undergraduate education (Schwartz, 2019). Undergraduate nurses' unfamiliarity with rural nursing is a global concern with the World Health Organization (WHO) (2020) outlining that nursing education programmes are primarily situated in urban areas, however, providing accessible education for students from rural areas and to be able to gain clinical experience in rural areas is vital. Schwartz, (2019) articulates the benefits of rural clinical placements including caring for a diverse range of patients with acute and chronic conditions and the difficulty of providing health care with limited staff and resources.

With the findings of this study indicating that NGRNs lack exposure to deteriorating patients in their undergraduate education, their first encounter of a deteriorating patient

is often as a new graduate nurse. On entering practice, the first opportunity for education on caring for the deteriorating patient is orientation. However, this study found that rural NGRNs can be disappointed in their orientation to facilities, as they expected more about the particular aspects of rural practice unique to the health services where they were employed. Describing their orientation as just compulsory days where they had to get mandatory training completed and therefore, did not feel prepared about how to escalate or manage episodes of patient deterioration within the particular rural health service. Literature highlights that limited emergent situations occurring in undergraduate education and no opportunity to establish or develop skills for these events in orientation programs, limits the ability of the NGRN to be efficient with the care of the deteriorating patient (Herron, 2017). While the literature (Dela Ratta, 2016; Herron, 2017; Sterner et al., 2019) identifies the lack of experience-based learning for the deteriorating patient in undergraduate education, orientation programs can also be a missed opportunity to provide education and skills to prepare NGRNs for these cases.

Literature suggests that clinical decisions and judgement, forming part of clinical reasoning, on adverse events or escalating care, should be a focus for development after the first four months of practice (Calleja et al., 2019). Other research (Graf, 2020), in line with Duchsher's stages of transition (2008), suggests that such skills are approached after the first six months of the new graduate year once the basics of nursing care are established. While it may be imperative that NGRNs first establish themselves in the foundations of nursing care, this may leave the NGRN further unprepared to care for the deteriorating patient. The rural NGRN is particularly vulnerable to being unprepared to take a key role in emergent events because of minimal support staff in rural practice. While the development of skills to escalate and manage care of deteriorating patients after four months of practice is essential, failure to prepare the NGRN for the context in which there is minimal support to manage the deteriorating patient from their first day of practice increases the risk particularly in relation to safety for both the deteriorating patient and the NGRN. Hence, is a missed opportunity for rural health services to adequately prepare NGRN for safe practice.

New graduate registered nurses that are unprepared to manage the deteriorating patient coupled with inexperience in working in a rural area has implications for patient

safety. In rural areas, managing a deteriorating patient is influenced by the diversity of patient conditions where the NGRN must move between the care of older patients, adults, paediatric patients, antenatal care, and emergency care (Australian Government Office of the National Health Commissioner, 2023; Burrows et al., 2018; Fowler et al., 2017; Graf et al., 2020; Muirhead & Birks, 2019; Whiteing & Barr, 2021). Generally, the variation in presentations within the rural context can hinder NGRNs ability to create patterns of recognition that can occur with familiar and more frequent presentations. For example, in tertiary settings where there are dedicated speciality areas or in an ED with multiple daily presentations.

Nurses practicing in rural areas need to practice as generalist nurses where they need a wider skill set and have a more expanded role than their metropolitan counterparts creating additional challenges for the NGRN (Lea & Cruickshank, 2015; Smith & Vandal-Walker, 2017). Rural nursing also requires pushing the RNs capabilities beyond their personal comfort zone, within their scope of practice, to care for patient presentations (Australian Government Office of the National Health Commissioner, 2023). For NGRNs to work towards the advanced generalist level that is required in rural health, they will further be required to push past their comfort zone of being a novice and show clinical courage. To what extent this may affect patient safety when caring for the deteriorating patient in rural areas could be questioned. The smaller the facility the more generalist the nurse needs to become because they are required to fill the gap created by a shortage of more experienced nurses, MOs, and allied health professionals in rural areas. Literature suggests, for example, Lea and Cruickshank (2015), and NGRNs in this study concur, that they are unprepared for this extended role of the rural RN and identified barriers for ongoing education to assist them with assuming this role. Challenges of location, time, and resources for ongoing education can negatively affect their performances and experiences in caring for the deteriorating patient (Australian Government Office of the National Health Commissioner, 2023; Burrows et al., 2018; Fowler et al., 2017; Graf et al., 2020; Muirhead & Birks, 2019).

In addition to feeling unprepared for the rural environment, this study highlights that NGRNs in rural areas are placed in emergent situations where they are required to take a leadership role, making clinical decisions independently until escalation for

greater support is made. With no MO present in many rural sites the nurse is a patient's first point of contact. According to Burrows et al. (2019), and Muirhead and Birks (2019), the nurse is required to assess the patient and decide if a MO is required to attend creating an added pressure on the NGRN to make the right decision. Consistent with previous studies (Fowler et al., 2017; Rohatinsky & Jahner, 2016), this study found that due to limited staff, NGRNs are often required to assess the patient and determine if a MO is required to review the patient. This requires the NGRN to perform with high levels of independence. For example, the total number of staff working in a rural facility may be only two RNs (inclusive of the NGRN) requiring the new graduate nurse to enact high levels of critical thinking, problem solving and coordination abilities (Australian Government Office of the National Health Commissioner, 2023; Lea & Cruikshank, 2017). In this study, even when there was a senior RN present, NGRNs were taking leadership roles when the senior RN was not engaged in a patient's care or was inexperienced in rural practice or not confident in the situation and so did not take a leadership role. This created a perception of being thrown in the deep end among participants in the study and resulted in stress, fear and frustration which reflects 'transition shock' as described by Duchscher (2008) and outlined in chapter one. Placing these responsibilities on NGRNs within the first period of transition adds to and magnifies the stressors of transition to practice.

Another important finding of this study is that the NGRNs were not prepared to manage the deteriorating patient via Virtual Health. Initially, participants had increased stress and anxiety around using Virtual Health when employed in facilities which utilised Virtual Health as their way of medical coverage, including escalation of care. Virtual Health requires NGRNs to escalate care and liaise with the medical team in a way in which they have never experienced before. Escalating care to a MO as a new graduate nurse can be an emotionally charged experience (Forbes & Evans, 2018). This is partly due to unpreparedness in undergraduate education for this communication, lack of opportunity to confer with doctors on clinical placement, rather liaising only through senior RNs. Additionally, there are inferences that communication with MOs is largely negative in nature for NGRNs (Forbes & Evans, 2018). This emotion and fear around communication were found to be enhanced further where the NGRN was also unprepared for the use of Virtual Health including with the use of the technologies and the unfamiliarity with communication to doctors via telehealth. Very

early in their transition, NGRNs may need to practice advanced or complex skills to manage the requirements of the deteriorating patient with a medical team through telehealth technology. New graduate registered nurses in this study were highly stressed when needing to attend to complex clinical procedures in high-stakes situations where they may have had some theoretical education in undergraduate study, but their first attempt at the procedure is undertaken with no hands-on support, rather online support through Virtual Health. The anxieties of NGRNs utilising Virtual Health in the care of the deteriorating patient stems from little preparation in undergraduate education, and further in facility orientation. Several studies have recently identified this gap with many tertiary education providers not providing adequate education on the use of Virtual Health and no particular focus towards use in rural health care (Eckhoff et al., 2022; Hamilton et al., 2021; Rutledge & Gustin, 2021; Schwartz, 2019). In 2019 the Australian Nursing and Midwifery Accreditation Council (ANMAC) updated their standards to include education on digital technologies, following the National Nursing and Midwifery Digital Health Capability Framework (Australian Government, Australian Digital Health Agency, 2020). While these standards are newly introduced, this study highlights that NGRNs remain unprepared for digital technologies despite the standards that serve to inform university curricula.

5.3. Ongoing education

The findings of this study highlight that the pressure on NGRNs to be prepared to care for the deteriorating patient informed them of the importance of on-going education and skill development. However, a tailored, stepped approach to ongoing education is needed as NGRNs can experience elements of transition shock when feeling overwhelmed with learning requirements (Graf, 2020). Employers may have an expectation that NGRNs are competent in generalist nursing skills, problem solving and working independently at the commencement of their new graduate year (Fowler et al., 2017; Schwartz, 2019; Sterner et al., 2019). However, for NGRNs in the current study, the expectation of practice readiness and multi-task workloads, with limited educational support and where there was also limited opportunity to develop patterns in recognition with patient deterioration, was overwhelming. Deteriorating patients can occur intermittently in rural practice contexts and so skill and practice in detection and escalation may be minimal and variable for both NGRNs and RNs alike. As suggested by Burrows et al., (2018), NGRNs in rural areas may not be frequently exposed to high

acuity emergencies, coupled with aa wide variety of case presentations, variability in knowledge and skill currency is a concern.

As previously identified, Virtual Health was quickly recognised by participants as something they were not prepared for. The finding of this study illuminated that NGRNs have had minimal practice in the use of digital technologies and communication through telehealth. In addition to inclusion of preparation in undergraduate education, the preparation for the implementation of Virtual Health by new graduate nurses in rural areas has been suggested to be included in orientation programs at the facility level (Rutledge & Gustin, 2021). New graduate nurses require knowledge and skills associated with the use of Virtual Health practice that includes communication skills, clinical judgement and decision making, supportive attitudes, and legal and ethical understanding (Knight & Prettyman, 2019). The Australian report, Educating the Nurse of the Future (Schwartz, 2019) recommends that student nurses are exposed to rural clinical placements to immerse themselves in health care using digital technologies to diagnose, treat and prevent illness. Once a NGRN is practicing in a rural facility, they require a clear understanding of the local procedures and processes related to Virtual Health and to be confident to use telehealth technology in emergent situations.

The findings of this study indicated that participants relied on online education focused on the management of the deteriorating patient as there is little face to face education available for them throughout the transition year. Rohatinsky and Jahner (2016), found that online education is a reasonable alternative to in person education due to access challenges in rural locations. In rural practice, there is a lack of access to ongoing education for several reasons. Nursing staff in the facility is limited, therefore finding a nurse to cover a shift to have the time to attend education can be challenging. Further, the distance and cost to travel can be high to attend face-to-face education days or conferences (Burrows et al., 2018; Lea & Cruikshank, 2017; Whiteing & Barr, 2021). These barriers to education can affect both the training of graduate nurses in new skills and then maintaining practice currency and knowledge. While too many education sessions early on in the graduate year will decrease the time the NGRN has to build on the foundation of rural nursing practice (Graf, 2020), participants in this study desired more than just online learning. What was desired by the NGRNs in this study was education on the escalation and management of the

deteriorating patient so they knew how processes worked in their rural facility and could further develop their understanding and skills. A tailored approach to education for rural nurses has been recommended by Muirhead and Birks, (2019), however this too should be extended to a more specific program for rural NGRNs ensuring that it includes training on the escalation and management of the deteriorating patient to ensure patient safety.

In Australia, the National Safety and Quality Health Service Standard 8, Recognising and Responding to Acute Deteriorating, (ACSQHC, 2017) requires all clinicians to be trained in equipment, monitoring and the clinical significance of observations in patient deterioration. The ACSQHC recommend this training be done through both online and face to face education including simulation. This face-to-face training on recognition and response to patient deterioration was anticipated by participants in the study but not received, and ideally this education should involve simulation activities to prepare and practice the identification and management of the deteriorating patient (ACSQHC, 2017). Literature has outlined the benefits of simulation for NGRNs with evidence demonstrating training increases the confidence and ability of new graduates to manage patients in acute situations (Herron, 2017; Martins et al., 2018; Norris, 2023; Norris, 2018; Sterner et al., 2023; Sterner et. al., 2022; Sterner, 2019). Virtual simulation has been found to improve the ability of the student nurse to recognise and respond to deterioration (Goldsworthy et al., 2022), therefore, in rural areas where face to face education has challenges, virtual simulation could be a strategy for the new graduate nurses' ongoing education.

Face-to-face education and support were also desired from nurse educators among participants in this study. However, this study found that participants had difficulty in accessing a nurse educator. The WHO notes there is a shortage of nurse educators globally (WHO, 2020). Additionally, in rural Australia, a nurse educator may not be employed at each location and rather may be required to travel and allocate time between multiple facilities or they may work in other roles within the facility therefore, are not freely available to NGRNs. Nurse educators assist in patient safety by adding appropriate skills, knowledge, values, and behaviours to a team through role modelling, direction, and support (Connor, 2017).

With minimal access to nurse educators, participants in this study identified the need to be self-directed and self-supported in many parts of their education. They were proactive in seeking out learning opportunities from the senior RNs who were recognised as those who provided the greatest education through hands-on support. However, as found in this study and supported by literature, for example, Mellor et al. 2017, senior staff can sometimes be reluctant to provide education and feedback on NGRNs progress and performance and it may need to be directly requested from a NGRN. Duchscher (2008) identified that new graduate nurses are self-critical and therefore hypersensitive to how they practice, requiring feedback from senior nurses. Time for the NGRN to sit one-on-one with a senior nurse to formulate goals and formal debriefing about the NGRNs' experiences is seen as ideal. The current study highlights the value that participants found during a debrief from either senior staff, a manager or from the Virtual Health team in growing their skills and confidence. Seeking out opportunities for a debrief where this was not routinely offered was a strategy for self-development. Studies such as Della Ratta (2018), Hussein et al. (2019), and Lea and Cruikshank, (2017) support the need for debriefing with NGRNs to provide feedback, promote reflection on practice and provide emotional support and reassurance.

Reflection was also noted in the literature (Sterner et al., 2019), as well as reflected in this study, as an important aspect of self-development. Reflective practice can be modelled and encouraged for NGRNs by nurse leaders (Sahay et al., 2021). For NGRNs when caring for the deteriorating patient, reflection allows the NGRN to gain insight and understanding on how a method or their actions and/or decisions can be improved when a similar situation arises strengthening their critical thinking their understanding of the cause of the adverse event (Li et al., 2020). While participants of this study felt they needed to support themselves in their own education, and did so through learning strategies such as reflection, the responsibility of health services to ensure new graduates receive education on the skills they need to further develop is highlighted by the findings of this study. Challenges that NGRNs in rural areas face with access to education may adversely affect their experience around caring for the deteriorating patient, and in turn, patient safety. There is a long-standing concern in the literature (Lea & Cruickshank, 2017), supported by this study's findings, around

the effectiveness of rural health services to meet expectations of NGRNs ongoing training and support.

5.4. Practice support

An important finding of this study was that when NGRNs had practice support from an experienced rural nurse, their experience in caring for the deteriorating patient was perceived as less stressful. This is despite the added stress and complexities that come with rural nursing practice. Practice support was conceptualised by participants as the support given to develop skills, knowledge, and role responsibilities with a focus towards the deteriorating patient. Many new graduates feel they do not have adequate support in transitioning from undergraduate education to practice (Schwartz, 2019). This is important to consider as support from experienced RNs will advance the NGRNs ability to make appropriate clinical decisions and apply clinical reasoning to ensure safe patient care (Sahay et al., 2021).

Early in the graduate year participants in this study desired someone to take the lead with clear direction and communication when a patient deteriorated. The participants, like other research participants (Hawkins et al., 2018), had a fear of high acuity patients and perhaps causing the patient harm. Therefore, the participants were looking for someone to role model the care of the deteriorating patient where they could stand back and learn. A role model during events of patient deterioration enables the NGRN to learn by watching which aids in skill and role development (Della Ratta, 2018). A role model did not need to be a RN, in this study, and in synergy with other research (Calleja et al., 2018; Lea & Cruickshank, 2015) EENs and AINs were highly valued for their support and direction towards the NGRN in the absence of, or adjunct to the senior RN. To be able to safely care for the deteriorating patient at this early stage of transition, NGRNs also need supernumerary staffing arrangements, repeated practice of skills, and access to experienced nurses with skills in preceptorship (Duchscher, 2008). A preceptor educates on processes, procedures, critical thinking, and decision making and skills and acts as a role model, educator, and guide (Schwartz, 2019). The positive influence preceptors have on novice nurses' skills and role development is known internationally (Della Ratta, 2018), yet this current study highlighted that many NGRNs do not have any formal preceptor relationships with no formal preceptor allocated to any of the study's participants. Further, due to small

teams in rural practice, this study highlighted that NGRNs seldom had the opportunity to be supernumerary. Rather they were an active team member or team leader when a patient deteriorated. When support of experienced nurses during acute situations is not adequate, it can leave the new graduate feeling abandoned (Lea & Cruickshank, 2017). A study by Graf et al. (2020), found that with support from appropriate preceptors NGRNs were able to thrive and feel confident and competent in their skills, however, preceptor support for NGRNs in rural nursing practice is limited.

This study highlights the importance of a mentor for NGRNs in rural practice, as have other studies (Rohatinsky & Jahner 2016; Rohatinsky et al., 2020; Schwartz, 2019; Voss et al., 2022). However, the literature on mentorship specific to rural areas is limited. A mentor serves more as a friend or confidante to the NGRN, with no set time frame for the relationship with a deeper relationship to that of a preceptor (Schwartz, 2019). Both will have shared goals for the mentee and work to integrate the mentee into the workplace, promoting a sense of belonging, engagement, networking, and professional growth which can offset the challenges of rural practice (Voss et al., 2022; Rohatinsky et al., 2020). Participants in this study desired a mentorship relationship based on trust where they can safely learn and feel supported in their care for the deteriorating patient. The benefit of rural specific mentorship programs has been recommended by Rohatinsky and Jahner (2016). In this study only one participant was allocated formal support by giving formal roles to the senior RN to support the NGRN. Where this occurred the NGRN was able to attempt new skills, become familiar with the rural practice environment, and gain some independence in caring for the deteriorating patient with a sense of accomplishment. The participant felt as though she had been provided with a positive learning experience where stress was minimised due to clear directions, ongoing support, and a respectful relationship with a mentor. While mentorships have shown to be effective in the professional development of NGRNs, it can be adversely impacted by limited and inadequate staff allocation and lack of resources in rural areas (Burrows et al., 2019).

As NGRNs transitioned to practice and began to experience their first deteriorating patients, this study's participants felt the need to reach out to a nurse educator for support in these emergent events. Ideal support systems have been outlined as one with a graduate facilitator and a ward-based educator (Lea & Cruickshank, 2017).

However, as found in this study and others, nurse educators are lacking in numbers in rural environments and are simply not available (Calleja et al., 2019; Lea & Cruickshank, 2017). This can leave NGRNs feeling alone and as though they are not able to maintain safe practice, leading to the risk of adverse patient outcomes. Participants in this study were disappointed and not prepared for minimal access to a nurse educator and facilitator for leadership and support. Participants were accustomed to support from educators in their undergraduate clinical placements and were aware their peers in metropolitan areas had this support available. Research suggests that as well as limited access to a nurse educator, smaller hospitals receive oversight from regional or metropolitan graduate programs that are meant to provide support to their satellite facilities (Graf et al., 2020). This study found, in alignment with Sedgwick et at. (2014), that rather than relying on new graduate programs for support, informal support relationships for the NGRN from ward-based nurses to learn from during emergent events was most influential.

The findings of this study identify how nurse managers play a vital role in influencing the experiences of the NGRN in caring for the deteriorating patient through their support. Participants in this study found nurse managers as knowledgeable and effective leaders during acute situations. With the absence of a nurse educator in many rural sites, fewer preceptors, and less clinical support in general due to less resources and lower skill mix, (Graf et al., 2020) it is important for nurse managers to assist the NGRN in times of adverse events and they are often sought to fill the gap in support (Calleja et al., 2019; Lea & Cruikshank, 2017). Past research (Burrows et al., 2019; Calleja et al., 2019; Lea & Cruickshank, 2017) also supports the value in nurse managers for support to the NGRN with Lea and Cruikshank (2017) finding that in the absence of a nurse educator, these nurses were best placed in an overarching support role providing NGRNs with debriefing, emotional support, advocacy, protection as well as providing formal feedback on the new graduate's progression. Nurse managers who promoted ongoing development of the NGRN through informal education during quiet periods, and impromptu conversations made the NGRN feel supported (Lea & Cruickshank, 2017). Lea and Cruikshank (2017) highlighted that nurse managers would benefit from education around how to support NGRNs within the rural environment to be of greatest support. However, while NGRNs felt greater support when a nurse manager was available, participants in this study highlighted the

perceived gap in support when caring for a deteriorating patient outside of business hours with the support outside of hours drastically reduced. While Virtual Health was used to cover this support in some instances, participants expressed that face-to-face and hands-on support was preferred.

This study found, in synergy with other research, for example Graf et al., 2020, that by 12 months the NGRNs felt more confident and competent to care for the deteriorating patient in rural areas. This is in line with Duchsher's Stages of Transition theory (2008) and other research (Graf et al., 2020; Hawkins, et al., 2018), whereby, at 12 months NGRNs feel greater confidence to practice as an independent nurse. However, NGRNs still require support for the full 12 months of their new graduate year, where this support was lessened earlier in the graduate year it resulted in feelings of exhaustion and dissatisfaction (Graf et al., 2020). Once feeling more confident in their skills and ability, this study found that the best approach to support the NGRN to care for the deteriorating patient was supportive learning strategies that provided the opportunity for the new graduate to lead in the care of the deteriorating patient. Della Ratta (2018) supports this finding in a study conducted on the preceptor role when supporting a novice nurse providing care for a deteriorating patient.

The current study also identified that preceptors would provide learning opportunities by 'staying close and stepping back'. This allowed the novice nurses to perform tasks independently, develop their clinical reasoning and critical thinking skills, while still maintaining patient safety and taking over patient care when the novice nurse was not recognising signs of patient deterioration or the situation was too emergent in nature. In this study of rural NGRNs, the support came from the experienced senior RNs on the ward who were seen as the NGRNs main educator and supporter, however, was not part of any formal role. Where this was done during emergent events with a stand back and support approach that provided one-to-one support using questioning, feedback and debriefing, the participants felt a sense of trust, reaching a point where they began to feel confident in their practice. The development of trust from the senior RN was considered to be a key feature in practice development and confidence among the participants in this study. This finding is supported by Rohatinsky and Jahner (2016) who discuss how with trust, novice nurses

are more comfortable in seeking advice, performing clinical skills, seeking, and accepting feedback and transitioning to the role of a RN.

In terms of support, where the NGRNs in this study experienced a nurse who was not supportive during an event of patient deterioration, their experience was characterised by feelings of being overwhelmed, stressed, frightened, and of being difficult. New graduate registered nurses in this study, and in a study by Sahay et al. (2021), were uncomfortable in seeking support from senior RNs where the nurse's behaviour or attitude was not supportive. Where NGRNs receive less support their stress, anxiety, and self-doubt will increase and the NGRN will be more likely to feel overwhelmed, fearful, and scared (Graf et al., 2020). Not all senior RNs, leaders, managers, or educators, are proficient at providing good support (Burrows et al., 2019; Calleja et al., 2019; Graf et al., 2020). Similar to Calleja et al. (2019), and Lea and Cruickshank (2017), this study found that the skill mix of staff in rural areas is of major concern to NGRNs especially when commencing their new graduate programs as ward-based support often does not occur due to skill mix and staffing ratios. In this present study, NGRNs were casualties of this skill mix deficit when caring for deteriorating patients. For example, some were required to take on leadership roles with EENs and AINs constituting their team and were required to provide advice to RNs who were new to nursing in rural Australia. Therefore, the level of support received can be dependent on the shift NGRNs are allocated to and who they are rostered to work with (Graf et al., 2020).

5.5. Summary

While it is known that new graduate registered nurses are unprepared to manage the deteriorating patient, the literature does not feature this as a specific concern within the rural environment. This study has shed light on the issues and challenges for the rural NGRN regarding detection, escalation, and management of deterioration. With limited rural experience in undergraduate education NGRNs come to rural practice without understanding the challenges that can occur in the rural environment. With intermittent episodes of patient deterioration, plus the wide variety and nature of possible presentations, it is difficult for NGRNs in rural practice to develop a pattern of recognition where they can learn from repeat similar experiences. Preparatory and ongoing education, therefore, is crucial for the rural NGRN. In rural areas this can be

more of a challenge to acquire, however, NGRN in rural areas should be afforded the same opportunities for education, and access to nurse educators, as their metropolitan counterparts. Good practice support from senior staff experienced in rural nursing is vital to ensure both learning opportunities and a positive experience for the NGRN and to ensure patient safety. In rural areas there is limited access to formal support such as nurse educators and preceptors, however, nurse managers are often seen to fill this void. Skilled, senior rural RNs, preceptors, and mentors to NGRNs, even if these relationships are informal, are valuable support mechanisms for the NGRN.

CHAPTER 6: CONCLUSION

6.1. Recapping the findings

The aim of this qualitative study was to explore the experiences of new graduate registered nurses in caring for the deteriorating patient in rural areas. Seven participants took part in this study and their experiences were collected via semi-structured, in-depth interviews. A descriptive phenomenological approach was used, and thematic analysis revealed three themes. The first theme, *First encounters - Transition to the rural team*, shared participants' experiences of their first encounters of patient deterioration and how the small team in rural practice influenced these experiences and feelings of unpreparedness. Several participants had adverse experiences due to the lack of practice support from senior nurses which is portrayed in theme two *Practice support for managing deterioration*. In the final theme, *The road to confidence,* the participants gained insight into their role as a rural nurse and shared their motivation to continue learning to enhance care provided to deteriorating patients. The findings revealed that NGRNs are unprepared to care for the deteriorating patient in rural areas, have barriers to ongoing education and that practice support is influential on the NGRNs' experience of caring for the deteriorating patient leading to recommendations to improve the NGRNs experiences on the phenomenon. Additionally, recommendations for further research are included and the strengths and limitations are outlined in this chapter.

6.1. Recommendations

This study's findings have identified a number of recommendations for education providers of undergraduate nursing programs, rural nurses who directly work with NGRNs, the rural facilities who employ NGRNs and for the NGRNs themselves. These recommendations have been presented at the 6th Australian Nursing and Midwifery Conference by the researcher (see Appendix F: Conference Speaker May 2023).

6.2.1. Recommendations for undergraduate education

This study recommends further focus on the undergraduate preparation of registered nurses to safely care for a deteriorating patient in the rural context. Literature has shown simulation is an effective learning tool to educate undergraduate

nursing students in the care of the deteriorating patient. Tertiary education providers could further incorporate simulation to recognise and respond to patient deterioration in the curriculum. Enhancing simulated learning experiences further to include the use of digital technologies would both introduce students to the virtual world as well as enhance skills and knowledge around patient assessment and care escalation.

The use of Virtual Health is a key feature of rural practice when caring for the deteriorating patient so undergraduate nursing education needs further inclusion on education and practice on the use of digital technologies including its use in rural health care. This study further recommends that professional experience placements provide the undergraduate student the opportunity for the use of digital technologies including using digital technologies to escalate patient care. Introducing students to Virtual Heath that encompasses video conferencing with patients and collaborative health professionals will prepare students for the use of Virtual Health in practice.

This research supports past and previous research that undergraduate nursing students do a percentage of their clinical placement in a rural area. It may not be feasible to have all undergraduate nursing students attend such a placement due to the availability of rural placements, and thus, this study recommends that where possible, each student has the opportunity to do a professional experience placement in the areas of MM 4, MM 5, MM 6, or MM 7 (rural and remote). These locations are limited with on-site medical officers which expands the role of the registered nurse. Undergraduate nursing students can then experience rural practice to prepare them for rural nursing which in turn will better prepare them to care for the deteriorating patient in these areas. It is known that is it difficult for undergraduate students to take full patient responsibility on clinical placement, however, it is imperative that students are afforded these opportunities as best as possible. Furthermore, facilitators and nurse educators in rural facilities could encourage and facilitate opportunities for student nurses to care for more complex patients and be part of the care of the deteriorating patient. To develop clinical reasoning and critical thinking in these patient cases, nurse educators can seek opportunities where the student can make decisions and then encourage reflective practice.

6.2.2. Recommendations for rural nurses

Experienced nurses working alongside NGRNs in rural practice during the care of a deteriorating patient, need to be aware of the significance associated with the provision of practice support. Rural nurses need to step into roles of preceptors and mentors for NGRNs and be proactive in seeking their own training and support with these roles. This study recommends that nurses in formal or informal support roles, enhance the provision of education and support to NGRNs focused on following aspects of care for the deteriorating patient; recognition of deterioration, escalation of deterioration with particular focus on tele-communications, management of the deteriorating patient with focus on the extended role of the registered nurse, and repeated practice of complex clinical skills for the NGRN to be prepared for practice in the rural area. This study highlights the importance of debriefing after an emergent event where the NGRN is encouraged to engage in reflective practice, supported in understanding how the event occurred and being provided with emotional support. This study further highlights the importance of nurse managers supporting NGRNs.

6.2.3. Recommendations for rural health facilities

Rural health facilities accepting new graduate nurses into transition programs, or directly to employment, have a responsibility to ensure that NGRNs are familiar with processes and procedures of the health service on how to respond to patient deterioration. This study recommends that health facilities include in their orientation program, consolidation of skills and knowledge on the deteriorating patient as well as procedures local to the facility. In rural areas, online simulation could enhance learning on the recognition and response to patient deterioration with the difficult access to education in rural areas. This study also recommends that facilities train and orientate NGRNs to their Virtual Health platform/s and ensure NGRNs are confident in the process for escalation and management of deteriorating patient care with the primary support through digital technologies. Further training on complex skills in orientation would also see a greater confidence in performing these skills such as when supported through Virtual Health.

Structured support and formal preceptors and mentors for NGRNs has been demonstrated to ease the stress of transition to practice and enhance NGRN job satisfaction and patient safety. Facilities enhancing or providing this support through

allocated preceptors for the first period of the new graduate year and a mentor in an ongoing capacity, can provide enhanced practice support in the care of the deteriorating patient. Further, rural nurses working with NGRNs should receive training and support on preceptorship and mentorship roles. Access to a nurse educator should be re-visited with the area health service and advocacy for greater access for the NGRN provided.

6.2.4. Recommendations for new graduate nurses

This study acknowledges the feelings of stress, fear and being overwhelmed that the participants' experienced when caring for the deteriorating patient. This study recommends that NGRNs commencing their new graduate year in a rural area be proactive in orientating themselves to the processes of escalation and management of care of the deteriorating patient in the facility. Self-management of ongoing education in recognising and responding to patient deterioration is important to lessen the feeling of being out of depth. Along with available online education, the NGRN should assert their need for face-to-face education and training through available resources and be proactive in asserting the need for access to a nurse educator on a regular basis. The nature of rural practice requires nurses to practice as generalist nurses with a wide scope of skills and knowledge, which may be infrequently practiced. The NGRN should seek advice on skills and complex procedures that may be required and maintain currency in these. As previously stated, it is recommended that the NGRN ensures they are trained and orientated to the local procedures around the use of Virtual Health and digital technologies. The NGRN in rural areas should be prepared to be self-supported, identifying needs and seeking support and training as they arise. However, the NGRN should expect support from senior rural nurses so where any formal support roles, such as a preceptor or mentor, are not allocated that the NGRN seek out nurses to take on these as informal roles.

6.3. Recommendations for further research

Further research is needed into the experiences of rural NGRNs and their care of the deteriorating patient to continue to inform education and best practice for safe patient care. Further qualitative studies on the experiences on the phenomena would allow a rich understanding of the barriers to safe patient care or a positive new graduate nurse experience. Qualitive research on how rural nurses support NGRNs in

their care of the deteriorating patient would guide the practice support to enhance graduate nurses' experiences and promote patient safety. Research would be valuable on the effectiveness of implementation of specific education in undergraduate programs on preparing new graduate nurses for managing patient deterioration in rural practice. Particularly, there is a lack of research around the implementation of digital technologies into undergraduate curriculum and how to best prepare students for use of these technologies in rural health practice within the context of escalation of care. Exploration could also occur on new graduate transition to practice programs in rural areas and how they support NGRNs to care for the deteriorating patient.

6.4. Limitations

This study has several limitations. One limitation is the small sample size; however, this study did not set out to generalise rather it aimed to provide insight into participants experiences. There were also no participants who identified as Indigenous, and participants were located in two states of Australia: NSW, and Victoria. The latter can be considered a limitation as NGRNs from other regions of Australia may have had differing experiences. Additionally, this study may be difficult to generalise internationally.

6.5. Strengths

This study has several strengths. The interviews provided rich data into the experiences of NGRNs in caring for the deteriorating patient in rural areas. The participants varied in age, gender and cultural background adding to the richness of the data. This is the first study to explore NGRNs experiences of caring for the deteriorating patient in the rural environment which is important for safety and patient outcomes and complements the existing literature.

6.6. Summary

In conclusion, this study explored the experiences of NGRNs in caring for the deteriorating patient in rural areas. The study's findings make a valuable contribution to the literature in relation to the recognition and response to patient deterioration by new graduate registered nurses, being the first study to focus on the rural practice environment. The findings strengthen current literature on the new graduate nurses transition to rural practice by highlighting the added complexities the NGRN faces with emergent situations. This should inform tertiary education providers on preparing students

to practice in rural facilities, be competent and confident in the use of digital technologies and optimise tools such as simulation and clinical placement, to enable NGRNs to be prepared as best they can to care for the deteriorating patient. The study highlighted that senior RNs are key in the provision of practice support for NGRNs and should be placed in formal preceptor or mentorship roles and be provided training and support to do so. Nurse managers are also key support people that can support oversight of NGRNs employed in rural facilities. Orientation programs that include training on digital technologies and escalation and management of care of the deteriorating patient with use of local procedures and policies would be beneficial to newly graduated nurses. The findings of the study revealed the importance of self-directed learning and reflective practice, in addition to seeking support from experienced peers. Importantly, the better prepared and supported NGRNs are in the care of deteriorating patients, the greater enhancement of patient safety as well as care for our newest nurses and the future nursing workforce.

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APPENDIX A

Recruitment flyer

Retrieved 08/21 from https://www.peninsulahealth.org.au/2018/03/27/millys-first-five-weeks-as-a-graduate-nurse/

Have you recently completed your new graduate nurse year in a rural area?

Retrieved 08/21 from https://www.peninsulahealth.org.au/2017/03/29/first-three-weeks-graduate-nurse/

Did you recognise/care for a deteriorating patient?

We are interested to know about your experience in caring for a deteriorating patient as a new graduate nurse in a rural area in NSW. We are conducting online interviews as part of a qualitative study to explore this sometimes-challenging experience in the context of rural practice. If you would be interested in being part of this study, please get in touch by the details below!

Ethics approval number HE21-228

Elaine Towner
School of Health
University of New England
[redacted]

Retrieved 08/21 https://www.mediserve.com.au/location/nursing-jobs-agencies-remote-rural/

APPENDIX B

Participants Information Sheet

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Information Sheets for Participants

PARTICIPANTS INFORMATION SHEET

I wish to invite you to participate in my research project, described below.

My name is Elaine Towner and I am conducting this research as part of my Master of Philosophy in the School of Health at the University of New England. My supervisors are Leah East and Jackie Lea.

Research Project	The experiences of new graduate nurses caring for the deteriorating patient in rural areas: an Interpretive Phenomenological Analysis
Aim of the Research	The aim of this study is to explore the experiences of new graduate registered nurses (NGRN) in caring for the deteriorating patient in the rural environment. The objectives of the study are: • to explore the experiences of the NGRN in caring for the deteriorating patient in rural areas • to explore the NGRNs preparedness for detecting/caring for the deteriorating patient • to understand how the rural practice environment affects the NGRNs experience of caring for the deteriorating patient
Interview	I would like to conduct online interviews with you via Zoom, Skype or FaceTime. The interview will take approximately 60-90 minutes. With your permission, I will make a recording of the interview to ensure that I accurately recall the information you provide. Following the interview, a transcript will be provided to you if you wish to see one. A quick demographic questionnaire will be obtained verbally at the start of the interview for the purpose of a description of participants, all data will be de-identified.
Confidentiality	Any personal details gathered in the course of the study will remain confidential. No individual will be identified by name in any publication of the results. Interview data may be quoted, however, all names will be replaced by pseudonyms; this will ensure your anonymity. If you agree I would like to quote some of your responses. This will also be done in a way to ensure that you are not identifiable.
Participation is Voluntary	Please understand that your involvement in this study is voluntary and I respect your right to stop participating in the study at any time without consequence and without needing to provide an explanation.
Questions	The interview questions may be a sensitive nature: they are general questions which will enable me to enhance my knowledge of your experience in caring for a deteriorating patient in the rural area. However, based on your personal experience they may lead to discussion on content sensitive in nature.
Use of Information	I will use information from the interview as part of my thesis, which I expect to complete in January 2024. Information from the interview may also be used in academic journal articles and conference presentations before and after this date. At all times, I will safeguard your

	identity by presenting the information in a way that will not allow you to be identified.
Upsetting Issues	It is unlikely that this research will raise any personal or upsetting issues but if it does you may wish to contact your Employee Assistance Program or Lifeline on 13 11 14.

APPENDIX C

Ethics approval

Human Research Ethics
Research Services
University of New England
Armidale NSW 2351
Australia
Phone 02 6773 3715
humanethics@une.edu.au
www.une.edu.au/research-services

HUMAN RESEARCH ETHICS COMMITTEE

MEMORANDUM TO: A/Prof Leah East, Dr Jackie Lea & Mrs Elaine Towner
School of Health

This is to advise you that the Human Research Ethics Committee has approved the following:

PROJECT TITLE:	The experiences of new graduate nurses caring for the deteriorating patient in rural areas: an Interpretive Phenomenological Analysis
APPROVAL No.:	**HE21-228**
COMMENCEMENT DATE:	01 December, 2021
APPROVAL VALID TO:	01 December, 2023
COMMENTS:	Nil. Conditions met in full

The Human Research Ethics Committee may grant approval for up to a maximum of three years. For approval periods greater than 12 months, researchers are required to submit an application for renewal at each twelve-month period. All researchers are required to submit a Final Report at the completion of their project. The Progress/Final Report Form is available at the following web address:
http://www.une.edu.au/research/research-services/rdi/ethics/hre/hrec-forms

The NHMRC National Statement on Ethical Conduct in Research Involving Humans requires that researchers must report immediately to the Human Research Ethics Committee anything that might affect ethical acceptance of the protocol. This includes adverse reactions of participants, proposed changes in the protocol, and any other unforeseen events that might affect the continued ethical acceptability of the project.

In issuing this approval number, it is required that all data and consent forms are stored in a secure location for a minimum period of five years. These documents may be required for compliance audit processes during that time. If the location at which data and documentation are retained is changed within that five year period, the Research Ethics Officer should be advised of the new location.

[redacted]

Bethany Ayers
HREC Secretary
Research Ethics Officer

APPENDIX D

Access request approvals

Health
Hunter New England
Local Health District

10 May 2022

[redacted]

Dear Coordinating Principal Investigator

Thank you for your access request for project: **The experiences of new graduate nurses caring for the deteriorating patient in rural areas: an Interpretive Phenomenological Analysis**

The **Access Request** has been reviewed by the Hunter New England Research Governance Officer (RGO) and based on the Approval from the University of New England HREC on 1 December 2021, in addition to the site support submitted with the application, the RGO has **authorised** the following:

- *The below sites to host survey flyers throughout the hospital and wards and for dissemination to new graduate nurses within their site.*

Sites:

- Moree Hospital - *Lee Clissold HSM supported, Camilla Cutcliffe the contact*
- Singleton Hospital– *Nicola Churms HSM supported*
- Gloucester – *Wade Smith HSM supported*

The following documentation is included with this approval:

- **Recruitment flyer and contact email**
- *Information-Sheet-For-Participants.doc.doc-1*
- *Interview schedule*
- *consent-form-for-participants-1-1-1*

Please advise when the involvement of Hunter New England Local Health District in the above project has ended.

Please contact us if you would like to discuss any aspects of this process further, as per the contact details below.

Kind Regards

[redacted]

Kristy Morris, Manager, Research Governance, Hunter New England Local Health District

Hunter New England Local Health District
ABN 63 598 010 203

HNELHD Research Office, John Hunter Hospital Mail Room,
Lookout Rd, New Lambton Heights NSW 2305
Phone 4921 4140

NSW Health

Access Request Form – New South Wales

Project information

Ethics application ID:	**HE21-228**
Name of HREC reviewing research project:	University of New England Human Research Ethics Committee
Project title:	The experiences of new graduate nurses caring for the deteriorating patient in rural areas: an Interpretive Phenomenological Analysis
Name of Coordinating Principal Investigator:	Elaine Towner RN

Specific details for this formal access request

Date of this request:	10/03/2022
Name of PHO for which access is requested:	**Western NSW and Far West LHDs**
List the name of the facilities/locations/services included in this application:	Small hospitals and MPCs in the LHD

Please summarise what is being requested from each facility, location or service listed:

We are kindly asking for the locations above within Western NSW and Far West Local Health Districts to host survey flyers throughout the hospital and wards. Further, if the hospital or local educator responsible for support of new graduate nurses could distribute the flyer to potential participants

What is the purpose for requesting this access?

For assistance with the dissemination of this survey to reach new graduate nurses across the state

Describe the proposed access process.

I would like to email educators of the facilities or NUMs/DONs in the absence of an educator.

Contact details for the Coordinating Principal Investigator

Name:	Elaine Towner RN	**Telephone:**	[redacted]
Email:	[redacted]	**Postal address:**	School of Health, Pat O'Shane Building, University of New England. Armidale 2351

Official Use

Acknowledgement of receipt from Research Governance Officer

I acknowledge receipt of the above access request form

Name:	**Adrian Fahy**	**Position:**	**Exec Director QCS&N**
Signature:	[redacted]	**Date:**	**21/03/2022**

Declaration by Research Governance Officer (or other authorised person)

The above project has been reviewed and has been granted site authorisation

Name:	**Adrian Fahy**	**Position:**	**Exec Director QCS&N**
Signature:	[redacted] Exec Director Quality, Clinical Safety and Nur...	**Date:**	**21/03/2022**

Date of this request: Click here to enter a date.

APPENDIX E

Consent form

CONSENT FORM

Research Project:

The experiences of new graduate nurses caring for the deteriorating patient in rural areas: an Interpretive Phenomenological Analysis

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I, ……., have read the information contained in the Information Sheet for Participants and any questions I have asked have been answered to my satisfaction.
Yes/No

I agree to participate in this activity, realising that I may withdraw at any time. Yes/No

I agree that research data gathered for the study may be quoted and published using a pseudonym. Yes/No

I agree to having my interview audio recorded and transcribed. Yes/No

I would like to receive a copy of the transcription of the interview.
Yes/No

I am 18 years of age or older. Yes/No

…… …….. ……
Participant Date

…….. ……
Researcher Date

APPENDIX F

Conference speaker May 2023

Dear Elaine,

We are pleased to advise that an abstract you have submitted for the 6th Australian Nursing and Midwifery Conference has been accepted as an oral presentation. Details of your accepted submission follow:

Speaker Presentations

Title	Rural New Graduate Nurses experiences of caring for the deteriorating patient
Paper Status	Accepted for Oral Presentation
Presenting Author	Mrs Elaine Towner

Further details of your presentation, including your allocated timeslot, will be sent to you once the program has been finalised.

In the meantime, please be reminded that all presenters (oral and poster) are required to register for the conference by Friday 10th March.

Please don't hesitate to contact us if you have any questions. We look forward to seeing you at the conference!

Kind regards,

Jasmine Durbidge, Jayne Hindle & Amy McIntosh

East Coast Conferences

Phone: 02 6650 9800

Email: jas@eastcoastconferences.com.au

6th Australian Nursing and Midwifery Conference

Celebrating our Successes: Transforming Practice for the Future

4 & 5 May 2023

Newcastle Exhibition and Convention Centre, Newcastle, NSW

www.nursingmidwiferyconference.com.au

CONFERENCE PROGRAM

(at 28th April, Subject to Change)

Program Day One — Thursday 4th May 2023

8.00am	**Conference Registration**	
Session 1	**Plenary**	**8.30am – 9.10am** **Location: The Arena** **Chair: Elizabeth Grist**
8.30am	**Welcome to Country** **Aunty Cheryl,** *Awabakal People*	
8.40am	**Didgeridoo Performance** **Uncle Perry Fuller**	
8.50am	**Conference Opening** **Professor Maralyn Foureur**	
Session 1 **Continued**	**Plenary**	**9.10am – 10.00am** **Location: The Arena** **Chair: Amanda Johnson**
9.10am	**Keynote Speaker: Professor Alison Kitson** Care is the New Cure *Matthew Flinders Distinguished Professor, Vice President & Executive Dean: College of Nursing and Health Sciences at Flinders University*	
9.55am	**Platinum Sponsor Address:** Hunter New England Local Health District **Elizabeth Grist**	
10.00am – 10.35am	**Morning Tea & Poster Sessions**	

Session 2	Concurrent		10.35am – 12.35pm
	2A: Transforming Healthcare	**2B:** Celebrate, Collaborate, Consider	**2C:** Innovation, Discovery, Possibility
Location	The Arena	The Extra	The Vivid
Chair	*Jo Campbell*	*Anthea Fagan*	*Michelle Foster*
10.35am – 10.55am	Pressure injury prevalence and practice improvements in nursing: The PIPPIN study **Jenny Sim,** *University of Newcastle*	Rural New Graduate Nurses' experiences of caring for the deteriorating patient **Elaine Towner,** *University of New England*	Australian nurses lead the way in addressing client spirituality **Heather So,** *University of Sydney*
5 minutes	**Changeover**	**Changeover**	**Changeover**
11.00am – 11.20am	Pressure injury prevention in intensive care units: The SPIDER project **Bassam Alshahrani,** *University of Wollongong*	Evaluating the rural nurse practitioner model of care: research protocol **Michelle Giles,** *Hunter New England Local Health District*	Australian healthcare personnel acceptance of the seasonal influenza vaccine: A qualitative exploration. **Caroline Hall,** *University of Canberra*
5 minutes	***Changeover***	***Changeover***	***Changeover***
11.25am – 11.45am	Patients' experience of a new model of integrated specialist wound management **Jonathan Brinton,** *Central Coast Local Health District*	Flow, blockage, and gender – considerations for bed allocation and nursing care **Andrea Miller,** *University of Tasmania*	Lives versus rules: dual qualified emergency nurse paramedics working for ambulance services **Caitlin Fitzgibbon,** *Western Sydney University*
5 minutes	***Changeover***	***Changeover***	***Changeover***
11.50am – 12.10pm	Building telehealth wound consultation into business as usual in community nursing service **Lyn Thomas,** *Hunter New England Local Health District*	Follow up phone calls by nurses and midwives, a mixed method evaluation **Mandy Hunter,** *Hunter New England Local Health District*	Understanding why women accept or decline referrals for gestational weight gain management **Jenna Hollis,** *University of Newcastle*
5 minutes	***Changeover***	***Changeover***	***Changeover***
12.15pm – 12.35pm	The effectiveness of implementing evidence-based falls preventions strategies in hospitals **Elizabeth Roberts,** *St Vincent's Health Network Sydney*	Nungkiliko: Self-determination in the healthcare system **Kayla Potter,** *Hunter New England Local Health District*	Development of a community breastfeeding assessment tool **Dianne Zammit,** *Central Coast Local Health District*

12.35pm – 1.30pm Lunch & Poster Sessions

6th Australian
Nursing and Midwifery
Conference

Celebrating our Successes:
Transforming Practice for the Future
4 & 5 May 2023
Newcastle Exhibition and Convention Centre, Newcastle, NSW
www.nursingmidwiferyconference.com.au

Certificate of Attendance

This certifies that

Elaine Towner

has attended the

2023 Australian Nursing and Midwifery Conference
4 & 5 May 2023

Newcastle Exhibition and Convention Centre
Newcastle, NSW, Australia