ResearchOnline@ND

The University of Notre Dame Australia
ResearchOnline@ND

Theses

2018

The identification of the role and competencies of the graduate nurse in recognising and responding to the deteriorating patient in an acute ward environment: A mixed methods study

Steven Hardman

Follow this and additional works at: https://researchonline.nd.edu.au/theses


Part of the Nursing Commons

COMMONWEALTH OF AUSTRALIA
Copyright Regulations 1969

WARNING
The material in this communication may be subject to copyright under the Act. Any further copying or communication of this material by you may be the subject of copyright protection under the Act.
Do not remove this notice.

This dissertation/thesis is brought to you by ResearchOnline@ND. It has been accepted for inclusion in Theses by an authorized administrator of ResearchOnline@ND. For more information, please contact researchonline@nd.edu.au.

THE UNIVERSITY OF NOTRE DAME AUSTRALIA

Chapter 1

Introduction and background

Introduction

This first chapter of the thesis introduces an overview of the problem of clinical deterioration and the challenges of recognising and responding to the deteriorating patient in the acute ward environment. It portrays the difficulties faced by the graduate registered nurse transitioning to the registered nurse role. These issues are discussed within the context of the national and international literature. The chapter will also sketch the purpose and significance of the study together with a brief description of the researcher location in the study. A plan of thesis will conclude the chapter.

The problem of clinical deterioration

Acute care hospitals have an increasing proportion of patients with higher acuity and complex co-morbidities, expanding the likelihood of developing serious illness, organ dysfunction and clinical deterioration during their hospital stay (ACSQHC, 2017). Over the last decade, studies have highlighted that a significant proportion of these patients experience serious adverse events, which can lead to a cardiac arrest and unplanned admission to the intensive care unit (Allen, Elliott, & Jackson, 2017; Anesi, 2017; McGloin, Adam, & Singer, 1999; McQuillan et al., 1998; NICE, 2007; Schein, Hazday, Pena, Ruben, & Sprung, 1990; Smith, Prytherch, Schmidt, Featherstone, & Higgins, 2008; Story, Shelton, Poustie, Colin-Thome, & McNicol, 2004). These changes to patients' condition have often led to an increase in the demand for critical care services including critical care beds.

There is considerable agreement that clinical deterioration of hospital patients is detectable and preventable in many cases (Allen, Elliott, & Jackson, 2017; Anesi,

2017; Buist, Bernard, Nguyen, Moore, & Anderson, 2004; Cardoso et al., 2011; Davies, DeVita, Ayinla, & Perez, 2014; DeVita et al., 2006; McQuillan et al., 1998; NCEPOD, 2005). Warning signs such as respiratory dysfunction, altered conscious state and circulatory compromise often exist for many hours before cardiac arrest occurs (Goldhill & McNarry, 2004). The detection of clinical deterioration in ward patients is often seen as the role of the registered nurse (RN) as they are often viewed as responsible for the observation, monitoring and interpretation of patient vital signs (Allen, Elliott, & Jackson, 2017; Anesi, 2017; Clarke, 2004; Considine & Botti, 2004; Liaw, Scherpbier, Klainin-Yobas, & Rethans, 2011; Massey, Aitken, & Chaboyer, 2010). This role places them in a key position to detect changes and abnormalities in the patient's condition.

This demand for critical care beds has left acutely ill deteriorating patients to be managed by junior nursing and medical staff within the general ward environment (ACSQHC, 2010; ACSQHC, 2017; Rattray et al., 2011). It is suggested, however, that staff working within this environment, are often ill-equipped to manage the acutely ill deteriorating patient (Gao et al., 2007; NICE, 2007; National Patient Safety Agency, 2007).

Despite significant agreement that accurate assessment of vital signs is essential for the early recognition of the deteriorating patient, it is concerning that several studies have identified that vital sign monitoring is frequently poorly performed by RNs (Cardona-Morrell et al., 2016; Goldhill, McNarry, Mandersloot, & McGinley, 2005; Mitchell & Van Leuvan, 2008). Overlooked changes to vital signs, often results in: poor clinical decision making; delays in seeking advice; suboptimal management; serious adverse events; and increased morbidity (Allen, Elliott, & Jackson, 2017; Anesi, 2017; Buist et al., 2004; Franklin & Mathew, 1994; Goldhill & McNarry, 2004; Lighthall, Markar, & Hsiung, 2009; Ludikhuize, Smorenburg, de Rooij, & de Jonge, 2012; McGloin et al., 1999; McQuillan et al., 1998; Schein et al., 1990).

There has been a renewed emphasis both nationally and internationally by government departments to provide hospital wide systems that are designed to reduce

the incidence of patient deterioration, adverse events and to mitigate clinical risk (ACSQHC, 2017; ACSQHC, 2008; Allen, Elliott, & Jackson, 2017; Anesi, 2017; CECNSW, 2008; Department of Health, 2009; NCEPOD, 2005; NICE, 2007; NPSA, 2007). One such system developed in the UK, recommended the use of a Rapid Response System (RRS) for all adult patients within acute care hospital settings (NICE, 2007). The RRS system includes a 'track and trigger' system for recognising changes in the patient's physiological condition alongside the provision of a medical emergency team, and the utilisation of skilled clinicians to provide rapid intervention to the deteriorating ward patient (ACSQHC, 2017; Allen, Elliott, & Jackson, 2017; Anesi, 2017; Cardoso et al., 2011; Devita et al., 2006: NICE, 2007).

The NICE also advocated that staff caring for patients in acute hospital settings should have competencies in monitoring, measurement, interpretation, and response to the deteriorating patient. These competencies were to be appropriate to the level of care that staff provided. Unfortunately, the guidance did not advocate specific roles, or the requisite competencies relevant to specific healthcare professional groups, including RNs, working within the acute care ward setting (NICE, 2007).

Similarly, in Australia, the Australian Commission on Safety and Quality in Health Care ACSQHC provided a framework of eight key elements essential for the prompt, reliable recognition and response to clinical deterioration (ACSQHC, 2010). The elements included four clinical processes and four organisational prerequisites (ACSQHC, 2010). The broad clinical processes advocated the use of a hospital wide RRS, similar to those advocated in the UK. Additionally, in 2014, the ACSQHC identified core competencies for recognising and responding to clinical deterioration in acute care hospitals. Fundamental to these competencies, was the necessity that healthcare professionals should be able to: accurately assess patients; interpret signs and symptoms; recognise the urgency of a situation; communicate effectively; and provide immediate escalation and interventions (ACSQHC, 2014; ACSQHC, 2017). These competencies, however, did not delineate the expected roles, or the level of competency required by the different healthcare professional groups (ACSQHC, 2017).

It is clear that a lack of clarification concerning the expectations of a specific role can lead to a number of problems for the RN (Amos, 2001; Brief, Sell, Aldag, & Melone, 1979; Burke, Tompkins, & Davis, 1991; Lambert & Lambert, 2001; Lima, Newall, Kinney, Jordan, & Hamilton, 2014; Posner & Randolph, 1980; Purling & King, 2012; Wolff, Pesut, & Regan, 2010). A lack of role clarification can lead to: lower productivity; tension; anxiety; low self-efficacy; dissatisfaction; ill health; absenteeism; increased staff turnover; and poor quality patient care (Bandura, 1977; Casey, Fink, Krugman, & Propst, 2004; Higgins, Spencer, & Kane, 2010; Kramer, Brewer, & Maguire, 2013; Mooney, 2007; Pike & O'Donnell, 2010). These problems have a negative impact on the nurse and the provision of care to the patient (Garrett & McDaniel, 2001; Janssen, 2009).

Graduate registered nurses (GRN) are considered to be novice newly qualified RNs who have completed an undergraduate nursing program and are working within their initial first 12 months of their registration (Missen, McKenna, & Beauchamp, 2016; Purling & King, 2012). A plethora of studies exist that discuss issues of GRN transition, general levels of competence on registration, and the clinical challenges they have experienced (Amos, 2001; Burger et al., 2010; Callaghan, Tak-Ying, & Wyatt, 2000; Casey et al., 2004; Chang & Hancock, 2003; Della Ratta, 2016; Ebright, Urden, Patterson, & Chalko, 2004; Kramer et al., 2013; Lambert & Lambert, 2001; Lu, While, & Louise Barriball, 2008; Meechan, Jones, & Valler-Jones, 2011; Missen et al., 2016; Mooney, 2007; Morrow, 2009; Munroe et al., 2015; Purling & King, 2012; Whitehead, 2001).

These studies have identified that transition into a workplace is fast-paced and challenging, with high levels of acuity and complexity of care (Della Ratta, 2016). The sense of initial excitement and achievement in the transition from student to qualified nurse can rapidly change to feelings of anxiety, uncertainty and fear, as the reality of a clinically demanding environment replaces academia (Delaney, 2003; Duchscher, 2009a; Goodwin-Esola, Deely, & Powell, 2009).

It is seen as essential that GRNs are able to practise safely and competently applying their knowledge and skills learnt in their undergraduate education (Hickey,

2009; Meechan et al., 2011). They are expected to work autonomously, dealing with increasingly complex patients, often with high workloads and increasingly complicated technology (Morrow, 2009). Nursing authorities and hospital managers expect that GRNs demonstrate competence and critical thinking in the provision of patient care, and be able to assume responsibility and accountability in a safe and professional manner (Nursing and Midwifery Board of Australia, 2016; Wolff et al., 2010). These expectations also extend to the GRNs capabilities of responding to the acutely ill patient (Purling & King, 2012).

Graduate nurses become rapidly immersed in the nursing team and the provision of complex care to acutely unwell patients. This care often involves responsibility for making key decisions about patient management (Ebright et al, 2004; Burger et al, 2010). Compounding the complexity of patient care is the increasing level of acuity in the hospital setting (ACSQHC, 2010). It is recognised GRNs are required to be competent in complex assessment and specialised clinical skills for an increasing number of critically ill ward patients (ACSQHC, 2014).

A number of barriers have been identified as influencing the RNs ability to recognise and respond to clinical deterioration. These barriers include: education; workload; ward culture and communication; negative emotions; level of experience; and the track and trigger systems used (Aitken, Marshall, Elliott, & McKinley, 2009; Andrews & Waterman, 2005; Bell & Redelmeier, 2001; Cioffi, 2000; Cioffi, Conway, Everist, Scott, & Senior, 2010; Crispin & Daffurn, 1998; Donohue & Endacott, 2010; Endacott & Westley, 2006; Endacott, Kidd, Chaboyer, & Edington, 2007; Jones, King, & Wilson, 2009; Liaw et al., 2011; Maggs & Mallet, 2010; Massey, Aitken, & Chaboyer, 2009; Massey, Chaboyer, & Aitken, 2014; Massey, Aitken, & Chaboyer, 2015; Odell, 2010; Quirke, Coombs, & McEldowney, 2011; Salamonson, Heere, Everett, & Davidson, 2006; Smith et al., 2008; Tee, Calzavacca, Licari, Goldsmith, & Bellomo, 2008; Wood, Douglas, & Priest, 2004). Such barriers need to be addressed if GRNs are to provide optimal care to the ward patient.

Aim of the study

The aim of this study was to identify the role of the graduate registered nurse in recognising and responding to the deteriorating patient in the acute ward environment and the relevant competencies needed to undertake this role.

Research questions

1. What is the role of the newly graduated registered nurse in relation to the identification, assessment and management of the acutely deteriorating ward patient?

2. What factors influence the role of the graduate registered nurse in the management of the acutely deteriorating ward patient?

3. Which acute care competencies are important to the graduate registered nurse in the management of the deteriorating ward patient?

4. At what level are graduate registered nurses working within the clinical setting in relation to the key acute care competencies?

5. How do we improve the capabilities of graduate registered nurses to assess and manage the acutely deteriorating ward patient?

Significance

Whilst it is recognized that GRNs have a general role to play in detecting the deteriorating patient they are apprehensive about their specific role and the associated competencies. Unfortunately, the guidance from organisations such as NICE and ACSQHC have not specified roles, or the requisite competencies. Significantly, there was a paucity of studies that have specifically investigated the role undertaken by graduate nurses, or the key competencies required to manage the deteriorating patient.

This study will redress the deficits within the literature and provide clarity with regards to the current role undertaken by GRNs in the recognition and response to the clinically deteriorating ward patient. Whilst it is important to delineate the role of GRN, there also needs to be clarification of the acute care competencies and the level of complexity involved. Moreover, the identification of the factors influencing the role of GRNs will facilitate the development of coping strategies to assist them in adjusting to the organizational environment (Chang & Hancock, 2003). Importantly, this study will help to improve the capabilities of the GRNs in managing the patient whose condition is deteriorating and ensure that future clinical actions are appropriate. These measures should result in positive outcomes for patients.

Context underpinning the study

This study was conducted within the Perth metropolitan area, which is the capital city of Western Australia (WA). The population of WA is over two million people and covers a land mass of approximately 6,400 square kilometres (Australian Bureau of Statistics, 2017). Currently within the Perth metropolitan area there are 12 acute public hospitals, nine of which operate an Emergency Department (ED). Also there are 16 privately funded acute hospitals, one of which operates an ED service.

There are four universities in Perth that offer an undergraduate degree in nursing: Curtin University; Edith Cowan University; Murdoch University, and the University of Notre Dame Australia. All the schools of nursing are accredited by the Australian Nursing and Midwifery Accreditation Council (ANMAC, 2017). Graduate registered nurses (GRNs) are those nurses who have completed an undergraduate nursing program and are working within their first year of qualification, in an acute hospital in the Perth metropolitan area.

Most GRNs are enrolled on the GradConnect program, coordinated by the Nursing and Midwifery Office of Western Australia this is an online recruitment system providing a choice of employment opportunities for the newly qualified nurse.

At the time of conducting this study, there were 1226 GRNs registered with the GradConnect program.

To answer the research questions, it was decided that a mixture of research methods and methodologies was required. For the most part, objectivism underscores the development and testing of questionnaires that were used to survey the GRNs in the first part of the study. Since the second part of the study required a subjective component, it is appropriate that the researcher acknowledges personal experiences and beliefs that could have shaped the analysis and interpretation of data. This reflexivity is important from a qualitative perspective being identified as a resource rather than a source of bias (Liamputtong, 2009). Thus, the following expose details the researcher's experience and is written in the first person.

Researchers location within the study

My journey as a RN began in the North West of England. I completed the "Project 2000" which provided extensive practical experience, alongside university based education. From time to time in my new RN role, I observed ward patients becoming acutely unwell, often showing abnormal vital signs, and commonly developing difficulties with breathing, blood pressure and altered consciousness. At the time, I was bewildered why these patients became so unwell, and how this happened so quickly. This stimulated my need to know more, triggering my interest and ultimately, guided my career path and passion for clinical deterioration and critical illness.

Over the years I have specialised as a critical care nurse in both civilian and military life. In my experience the majority of patients admitted to intensive care units (ICU) have been in the hospital for some time, often on the wards for hours or days with declining organ function. Commonly, the course of deterioration was detected by nursing staff, but minimal treatment or intervention was provided. Eventually these deteriorating patients would often decline to the point of peri-arrest, requiring urgent emergency treatment and resuscitation, followed by admission to the intensive care unit (ICU). Frequently, the deteriorating ward patients have been admitted to ICU with

multiple organ failure, requiring prolonged admission and complex invasive treatments. The outcome for these patients was generally been poor, commonly resulting in protracted hospital stays, worsening comorbidities or death.

The plight of the deteriorating ward patient instilled a purpose in me, to improve their outcome. Currently, in my role as a university lecturer, specifically in critical care skills, my focus is to ensure that the new graduate nurse is adequately prepared and competent to recognise and respond to clinical deterioration. Thus, the objective of this study was to investigate how the recognition and response of nursing staff to clinical deterioration could be improved. In particular this meant there was a need to delineate the role and competencies of the GRN, since they were emotionally vulnerable to emergency situations.

Plan of Thesis Chapters

The format for the thesis chapters will be as follows:

Chapter 2. Literature review: provides a critical review and synthesis of the current literature. It begins with an explanation of the conceptual framework used to guide the literature review. This is followed by a critical discussion of concepts surrounding: clinical deterioration; the registered nurses' role in clinical deterioration; and the graduate nurses' role in managing clinical deterioration.

Chapter 3. Methodology: provides a discussion of the mixed methods research (MMR) approach used within this study together with the rationale for using an explanatory MMR design. A brief synopsis of philosophy of pragmatism which underscores MMR approach used, will be provided. The chapter will then outline the study design and the four sequential phases of the study.

Chapter 4. Phase 1 Development of the questionnaires: provides a discussion of the development of the phase 1 questionnaires (Q-Role and the Q-Comp). The processes used for the development of the Q-Role will initially be provided, including an overview of the expert panel review and the test for reliability. This will then be

followed by a discussion of the development of the Q-Comp, including an overview of the validity and reliability tests.

Chapter 5. Quantitative data collection and analysis: outlines the data collection and data analysis of phase 2 of the study. To begin, the chapter will describe the population, sample and recruitment processes used for the phase 2. Next, the administration and data collection processes used for the Q-Role and Q-Comp will be provided. Finally, the data analysis techniques, including the statistical methods employed for phase 2 of the study, will be outlined.

Chapter 6. Quantitative findings: provides an outline of the findings from the phase 2 data collection. Initially the Q-Role findings will be presented, including the demographic data and the core findings concerning the role of the GRN. Next, the findings of the Q-Comp will be presented. The findings will be subdivided into parts 1, 2 and 3, outlining the demographic data and the key findings related to the acute care competencies used by the GRNs.

Chapter 7. Qualitative data collection and analysis: describes the qualitative phase of the study. It includes data collection and analysis including the data analysis techniques.

Chapter 8. Qualitative findings: provides a description of the findings from the focus group interviews undertaken in phase 3. The emergent themes and subthemes from the data analysis are presented along with examples of narrative from the GRNs to support the themes.

Chapter 9. Discussion, Limitations and Recommendations: provides a synthesis of meta-inferences and discussion of findings from the quantitative and qualitative phases of the study. The meta-inferences will be presented to answer the research questions and linked with current literature. The chapter will provide a discussion of the limitation of the study followed by key recommendations from the study.

Summary

This current chapter has provided an introduction to the thesis. It began with an overview of the problem of clinical deterioration and the challenges of recognising and responding to the deteriorating patient in the acute ward environment. It discussed some of the difficulties faced by the graduate registered nurse transitioning to the registered nurse role. The chapter also outlined the purpose and significance of the study together with a brief description of the researcher location in the study. A plan of thesis concluded the chapter.