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NSW public-hospital dietitians and their workplace: true love or a marriage of convenience?

Marianna Milosavljevic

University of Wollongong

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NSW Public-Hospital Dietitians and Their Workplace: True Love or a Marriage of Convenience?

Marianna Milosavljevic

This thesis is presented as part of the requirements for the award of the Degree of Doctorate of Business Administration in the Sydney Business School of the University of Wollongong

JULY, 2012
ABSTRACT

This thesis examines how NSW public-hospital dietitians are affected by their workplace. It could be said dietetics was born in the hospital environment: this workplace has undergone rapid changes over the last 50 years from a place of convalescence and recovery to one of advanced technological interventions, diagnosis and assessment and short-stay procedures. Despite these changes there has been very little research exploring their impact on the hospital-based dietitian. Yet 43% of the Australian dietetic workforce is within a hospital environment, therefore a study examining this area is both timely and warranted.

This thesis explores this topic using a multimethod approach, investigates the question from three different perspectives: a direct overt observational study of 19 dietitians, across a range of hospitals and services; a cross-sectional structured-survey that measured the level of burnout amongst New South Wales public-hospital dietitians; and 32 in-depth interviews of dietitians across NSW public-hospitals, analysed using a grounded-theory approach.

The major findings from this thesis include: the majority of tasks undertaken by the hospital dietitian occurred away from the patient; there were low to moderate levels of burnout experienced by dietitians across NSW, but there were factors associated with higher levels of burnout, such as level or years of experience and the type of hospital in which the dietitian worked; and dietitians sought validation from their workplace from five sources. These five sources of value were: acquisition of knowledge, relationships with others, the work culture, role clarity and self-attributes. The relative importance of these values changed according to the career stage of the dietitian.

The professional implications of this research include: the development of a career-support program tailored to the different stages of the dietetic career; the need to foster functional
interdisciplinary health-care teams; the importance of role identity for the hospital-based dietitian; the creation of the dietetic consultant and the need to recognise inefficient and ineffective work processes.

This research has several limitations: the fact only one single nutrition service was involved in the observational study; potential bias in the response rate in the burnout survey; and the use of a grounded-theory approach for the in-depth interviews means the results are only applicable to those dietitians, hence limiting the generalisability of the findings.

The question is ‘NSW public-hospital dietitians and their workplace: True love or a marriage of convenience?’ It would appear; from this study that the ‘marriage’ is initially based on true love: but as with many marriages, the success of the union relies on an ongoing commitment, compromise and adaptation. Dietitians and NSW public hospitals are no exception.
ACKNOWLEDGEMENTS

I wish to acknowledge and thank all those who assisted me in undertaking this Doctorate of Business Administration. I would like to express my appreciation to my primary supervisor, Associate Professor Gary Noble, for his ongoing support, encouragement and clear direction throughout this process; to my secondary supervisor, Associate Professor Peter Williams for his willingness to assist; and to all the academics within the Sydney Business School who provided invaluable assistance throughout this journey: Dr Grace McCarthy with her kindness and ongoing encouragement and belief in my ability to complete this work; Professor John Glynn, the Dean of Sydney Business School, who has provided so much support for all his DBA students and the necessary infrastructure that gave me the opportunity to see this degree as something that was within my reach; and Associate Professor Nelson Perera for his statistical advice and general words of wisdom about the doctoral process.

I am indebted to my in-house supervisor, who also happens to be my husband, Mark. He managed to walk the tightrope between being a constructive critic and my primary source of emotional support throughout this entire process.

I would also like to thank my three wonderful children – Ilona, David and Rachel – who, like clockwork, would provide a steady stream of interruptions between 3 and 6 pm every afternoon during the write-up phase. Ilona also provided the regular morning sustenance of my favourite pastry, the mushroom tart.

A special thanks to every research student who spent hours with me examining the data and paying close attention to the details: Tegan, Geraldine and Carly in the direct observational study, and Ashleigh, Gabriela and Ivana, who went on the journey of discovering the exciting potential of the grounded-theory approach.
A very warm and sincere thanks to all the dietitians who participated in this study, as you were pivotal to the success of this work. It was a privilege, and indeed an enjoyable experience, to have had the opportunity to hear all your stories and learn more about the dietetic profession from your perspective.

This thesis was professionally edited by Laura E. Goodin, but there was no assistance with the content, conduct or interpretation of the research.
I dedicate this thesis to my mother and father, Eileen Quirk and Borivoje Milosavljevic, who, in migrating to Australia in 1961, made the most important decision of their lives together. They made this choice despite the warning from their family and friends ‘that that the cockroaches were so big you could saddle them up and ride them into town!’ It was their courage and wisdom that gave all of their four children the gift of opportunity. This decision was made all the more poignant by the fact both my parents had little opportunity to pursue an education due to their personal circumstances. My father tells a story of how his own father would have to bribe the schoolmaster with one of their family pigs, to keep him in school. This was because my dad often chose to wander the forest near Valjevo in Serbia, chasing birds and squirrels rather than attending school. My mother, an Irish lass from Belfast, would tell the story of how when her family migrated to Birmingham after World War II, she often walked past an old stone bridge near her home. Chiseled in the surface was a warning to all ‘Any person found jumping from this bridge will face transportation to Australia’. I remember her amusement when recalling the story of how she had actually chosen that very fate for her and her family. They made the right decision.
I, Marianna Milosavljevic, declare that this thesis, submitted in fulfilment of the requirements for the award of Doctor of Business Administration, in the Sydney Business School, University of Wollongong, is wholly my own work unless otherwise referenced or acknowledged. The document has not been submitted for qualifications at any other academic institution.

Marianna Milosavljevic

1st July, 2012
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<tbody>
<tr>
<td>DBA</td>
<td>Doctorate of Business Administration</td>
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<tr>
<td>DAH</td>
<td>Director of Allied Health</td>
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<tr>
<td>DP</td>
<td>Depersonalization</td>
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<td>EE</td>
<td>Emotional Exhaustion</td>
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<td>GT</td>
<td>Grounded Theory</td>
</tr>
<tr>
<td>MBI-HSS</td>
<td>Maslach Burnout Inventory-Human Services Survey</td>
</tr>
<tr>
<td>NDAG</td>
<td>Nutrition and Dietetic Advisory Group</td>
</tr>
<tr>
<td>NH&amp;MRC</td>
<td>National Health and Medical Research Council</td>
</tr>
<tr>
<td>OT</td>
<td>Occupational Therapist</td>
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<tr>
<td>PA</td>
<td>Personal Accomplishment</td>
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<td>PT</td>
<td>Physiotherapist</td>
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<td>USA</td>
<td>United States of America</td>
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<td>PhD</td>
<td>Doctor of Philosophy</td>
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NSW Public-Hospital Dietitians and Their Workplace: True Love or a Marriage of Convenience?

Chapter One: Introduction

1.1 Introduction

This thesis examines how a group of NSW public-hospital dietitians perceive their workplace. This area has received little to no attention in the literature, yet 43% of the dietetic workforce is employed in the Australian public-hospital setting (Brown et al., 2006). Therefore, an investigation into how dietitians view their workplace may provide useful insights for the future positioning, management and role of this profession. There is evidence within the international literature that work context can affect how an employee provides service (Tourangeau et al., 2009; Hamelin Brabant et al., 2007; Lamberth & Comello, 2005; Lundstrom et al., 2002), and within the American dietetic profession it has been acknowledged that work context shapes dietetic practice (Mason, 1982). A study examining the hospital as the work context would appear timely, given the rapid changes in health services and the predicted expansion of this sector over the next 20 to 30 years (Zajac, 2003; Hillman, 1999). The dietetic profession needs to be strategic to ensure it secures a position within the public health-care sector. This can only be achieved if the ‘decision-makers’ view dietitians as an integral part of the health-care team. The challenge for this profession is to remain relevant in the 21st-century hospital. This study represents a first attempt to examine the role of Australian dietitians in the modern hospital setting, from their own perspective.
1.2 History and Importance of the Profession of Dietetics

The term ‘dietitian’ was first noted in 1899, and the earliest published description of this profession was in 1925, when dietitians were seen as ‘nutrition experts’: Those responsible for ‘putting to the test new ideas, for weeding out impracticable methods and improving the effectiveness of treatment’ (Wilder, 1925). The contemporary definition of a dietitian as put forth by the Dietitians Association of Australia website (Dietitians Association of Australia, 2012), reads thus: ‘Dietitians apply the art and science of human nutrition to help people understand the relationship between food and health and make dietary choices to attain and maintain health, and to prevent and treat illness and disease’. The dietetic profession developed as a direct result of the recognition of the importance of nutrition and the role nutrition plays during illness. In fact, at the turn of the 20th century, the ‘scientific feeding of the sick’ was expected to displace drugs as a treatment option for the hospitalised patient (Arndt & Bigelow, 2006). It could be said that the profession of dietetics was born in the hospital context. The role of this health professional was to make sure all aspects of therapeutic dietary intervention were managed, from individual dietary requirements to the management of food services. Yet dietitians were also expected to assist the physician in recommending suitable dietetic interventions in a range of medical conditions, as well as to educate hospital staff and research nutrition in the clinical setting.

In Australia the first university-trained dietitian began work at the Melbourne’s Alfred hospital, in January, 1930. The main role of the Australian dietitian during the early days of the profession was improving the ‘general standard of nutrition for patients by upgrading the food service’ (Clements, 1986 p142). By the mid 1940’s catering officers were employed to take over general food service leaving dietitians able to concentrate on clinical dietetics.
and education. Since those early days the profession has changed from one of kitchen supervisor to become an integral part of the health professional team within the hospital environment (Boyce, 2006).

Although the profession has, for many years, been largely based in the biological sciences, there has been a gradual change in the training and role of dietitians, from a didactic, education-based approach to one based in client-centred therapy (Licavoli, 1995). The profession now integrates into its counselling approach a range of behavioural-based theories (Tsorbatzoudis, 2005; Kristal et al., 1999) as well as motivational interviewing (Hoy et al.) and telephone counselling (Lazovich et al., 2000; Robinson et al., 2000). These changes have been recognised by those within the profession as problematic, with previous research questioning the profession’s readiness to take on their required role (Gingras, 2010; Maclellan et al., 2011; Gingras, 2005). This evolution in practice has been driven by the changes in the work context and the needs of clients/target groups.

However, it also raises questions about the role of the hospital-based dietitian: does the work context support a profession that requires the establishment of rapport and trust with the patient, and provide the dietitian with the opportunity to use the full range of their skills and knowledge? Or is it a largely process-driven environment that requires the dietitian to perform the role of a skilled technician and/or an information-dispensing role? These are important questions, as the imperative, within the current financial climate, is that health professions demonstrate their cost-effectiveness, and dietetics is no exception (Pavlovich et al., 2004).
1.3 Work Context of the Hospital Dietitian

As noted above the profession of dietetics was born in the hospitals of the late 19th and early 20th century. Understanding that history and work context can enhance our understanding of the development of the hospital dietitian over time. This author puts forth the hypothesis that the evolution of the dietetics profession is affected by the changes within the institutions in which it operates.

As an example, the development of the dietetic profession has been shaped by a major change in the way hospitals have been run. The profession first emerged concurrently with a greatly increased emphasis in the hospital setting of the management principles of ‘efficiency’; this approach has been termed by some in the literature as institutionalised logic (Arndt & Bigelow, 2006). Standardisation was seen as the optimal goal for all hospital administrators. As early as 1914, dietary service was seen as an essential component in achieving more efficiently run hospitals. ‘Dietetico’ therapy, which began in the 1920s, had as its primary focus the production of nutritionally adequate and safe meals for patients. This included purchase, delivery, storage, preparation and meal delivery to patients, as well as preparation of special dietetic meals, education of patients and staff and the development of therapeutic diets and individual nutrition care plans. Although hospital management centred on efficiency, it was still largely driven by specialisations within the medical profession.

Hospitals are now often large bureaucratic organisations with well-established hierarchical structures that follow the traditional functional structure (Braithwaite, 1993). There are some long-standing systemic issues that distil down to the existence of competing types of management structures within the one institution. These have been described by Mintzberg, a recognized leader in the area of hospital management, as nursing, medical,
hospital administrators and the board of directors or trustees (Mintzberg, 1997). Each of these groups has particular needs and is driven by a different agenda. For example, nursing aims to manage continuous care for the patient, doctors focus on the immediate intervention or intermittent cure, administrators look to manage within a budget and the hospital board tries to ensure responsibility on behalf of the community.

The Australian public-hospital system faces the similar management challenges, augmented by several additional factors:

- the changing role of hospitals from a place of convalescence to one of diagnosis and short-term care (Hillman, 1999), and the development of alternate models of care for patients (Yarmo-Roberts, 2008);

- increasing acuity or level of care required for patients (Braithwaite & Hindle, 1999);

- an ageing population, with an accompanying increase in their health needs (Amaral et al., 2007); and

- The trend to shorter length of hospital stays (AIHW, 2010).

There has been a significant increase in the cost of providing healthcare to all Australians, and the government has estimated this will continue to increase over the next 20 years as the population ages (Braithwaite & Hindle, 1999). This raises the question, how do these changes affect dietetics in the hospital setting? There is mounting pressure to provide evidence that an intervention has an impact on the health status of the patient receiving that service. The 2010 Australian National Health Reform report outlines the overall objectives of the public health system: there is a push to reduce the length of stay and a large focus on examining the out-of-hospital range of services, domiciliary service and
hospital-in-the home type models of care (Department of Health and Ageing, 2010). The introduction of the case-mix funding model means those hospitals that can reduce their length of stay are financially rewarded and those that have longer length of stays will effectively lose funding (Hart & Wallace, 1998). In Australia, this model was first introduced in Victoria and has recently been adopted at a federal level; in other words, activity-based funding is now the way hospitals will receive funding (Braithwaite et al., 1998). This will give those professions that can demonstrate an impact on length of stay a secure footing in the 21st-century Australian hospital system.

1.4 How These Changes Have Affected Hospital Dietetics

Dietetics ensures the appropriateness of the nutritional care provided to the hospitalised patient. Although there is an abundance of evidence that poor nutritional status is associated with longer length of stays, there is little evidence that short-term dietetic intervention can improve the nutritional status of a hospitalised patient. Those few trials that have examined nutrition support over longer time periods have shown some promising results, such as a reduction in post-discharge mortality, reduction in readmissions (Feldblum et al., 2011), and improvement in functional status (Neelemaat et al., 2011) and quality-of-life measures (Norman et al., 2008). However, in the acute hospital setting, the reality of high patient turnover and short length of stay, means that often the only intervention provided by dietitians is the initial diagnosis and/or assessment.

The majority of dietetic interventions require long-term intervention to show outcomes (Pavlovich et al., 2004). If the hospital environment continues to change, ongoing nutrition support will be required outside the four walls of the acute hospital. This leaves the role of the hospital dietitian as one of initial assessment and nutritional diagnosis. These are still
important functions but it is more difficult to prove they actually reduce length of hospital stay in the short term. Also, they only require a subset of the dietitians’ repertoire of skills: assessment and diagnosis are part of the nutrition care process, but implementation of the care plan and ongoing monitoring and evaluation are critical components to ensure long-term success (Splett & Myers, 2001).

1.5 Professional Position of the Dietitian Within the Hospital System

The position of dietetics within the hospital system is a difficult one to assess. In the Australian context there is very little literature examining how those outside the profession view dietitians. A study published in the late 1980s compared the level of agreement between a doctor and dietitian with regards to how they viewed the role of a dietitian (Scott, 1987). The largest differences lay in expectations regarding the delivery and accuracy of meals to hospital patients. It should be noted, however, that considering the date of the study, this may not reflect contemporary views. The results were similar to a US study that compared physicians’ and dietitians’ perspectives on the dietitians’ role (Boyhtari & Cardinal, 1997). A more recent Australian study examining medical dominance within a specialist multidisciplinary team did note that within the hierarchy of that team dietitians were second from the bottom (Nugus et al., 2010). In contrast to these findings, dietitians appear to view themselves quite highly, as measured by perceived level of empowerment (Mislevy et al., 2000). In addition, surveys of new graduate dietitians in the US show that 61% of new graduates would recommend the profession to others (Stone et al., 1981a). Despite dietitians being relatively satisfied with their profession, the studies in this area have cited a number of factors that are sources of dissatisfaction: lack of role
recognition, poor pay and lack of professional autonomy (Dishion, 2003; Agriesti-Johnson and Broski, 1982; Sauer et al., 2010b).

The lack of professional recognition is not unique to the dietetic profession: studies have shown it to be a belief widely held by many other ‘non-medical’ professions (Kenny & Adamson, 1992; Adamson et al., 1995). It has also been noted that there exists a hierarchy within the allied health professions themselves, with some claiming they already enjoy a degree of professional autonomy and privilege (Atwal & Caldwell, 2005; Ovretveit, 1985; Paris, 2008), whilst others view themselves as poorly regarded and being at the bottom of the ‘heap’ (Wilding, 2011; Moore et al., 2006; Griffin, 2001).

Dietitians face enormous challenges in improving and securing a place within the hospital system due to a combination of factors: the evolving role and focus of public-hospitals, the changing patient profile, the perception of the profession and their ability to demonstrate their worth in a culture that values throughput and short-term measurable outcomes. Those allied health professions that have realigned their services to meet the changing expectations of their employers are making the necessary changes to secure a long-term position within that workplace (Lechman & Duder, 2009; Brusco & Paratz, 2006; Griffin, 1993). Dietitians must do the same in order to survive.

1.6 Research Question and Justification

To date there has been very little research undertaken in Australia and abroad in the area of how dietitians view their workplace. Chapter Two gives a detailed account of the studies examining job satisfaction and dietetics. Most of these studies are North American-based and were conducted over 20 years ago. Within the Australian context there are a limited
number of relevant studies, but none focussed specifically on the NSW public-hospital dietitian. This study attempts to address the current shortage of research in this area by exploring the factors affecting the NSW hospital dietitian’s perception of their workplace. It is hoped this work will provide a baseline for further research to ensure that the profession retains an engaged and motivated workforce.

The research aim of this thesis is to investigate NSW public-hospital dietitians and their workplace. This research question will be examined using three stand-alone studies each providing a distinct perspective with a specific aim and objectives.

Chapter Four is a direct observational study that aims to measure the range of tasks undertaken by NSW public-hospital dietitians. The objectives are to:

- Provide the profession with an accurate picture of where hospital dietitians spend their time so that managers and policy-makers can make more informed decisions.
- Compare the results between dietetic inpatient and outpatient services.
- Compare the results to other health-care professionals within a similar work setting.

Chapter Five is a cross-sectional survey and that aims to measure the rate of burnout amongst hospital-based dietitians working within NSW public hospitals. The objectives are to:

- Identify the variables that are significantly associated with burnout.
- Compare the results among dietitians in different health settings.
• Compare the results to the perceptions of other health-care workers in similar settings.

Chapter Six is a survey of NSW dietitians using in-depth interviews, to investigate their attitudes and beliefs about their role within the public-hospital system. This study, which used a grounded-theory approach, aims to provide an in-depth exploration of dietitians’ perceptions of their work environment. In a grounded theory approach the purpose is to generate a theory from the data (Glaser and Strauss, 1967) and hence this study has an overall question or aim rather than specific objectives.

1.7 This Topic Is Worthy of Investigation

This thesis provides fresh insight into what issues dietitians face in undertaking their role in the NSW public-hospital system. This research identifies both the hindrances this group of health-care professionals perceives and the areas they consider as important. This knowledge can help managers in develop an appropriate range of management strategies to address the issues and optimise the positive aspects.

The literature expounds the importance of retaining an engaged and highly skilled workforce (Cascio, 1995). It also has been suggested that staff turnover is costly and time-consuming, and can lead to poor quality of service (Cooper & Dewe, 2008). The area of what has been termed –‘presenteeism’ when people turn up for work when they are not really able to undertake their job fully, for a variety of reasons (Lack, 2011)–has also been examined within the literature. An employee who is not engaged or lacks motivation may not be as productive. The projected allied health staff shortages forecast over the next 10 to 20 years make the area of staff engagement and turnover even more critical.
(Productivity Commission, 2005). The standard approach to addressing workforce shortages has been the technocratic or front-end push (Schofield, 2009): increasing the number of trained graduates in the areas of most need, such as nurses, doctors and various allied health workers. However, this approach has failed to address one of the biggest workforce crises, the nursing shortage (McNeese-Smith & Nazarey, 2001; Estryn-Behar et al., 2007).

The main reason why a front-end approach does not work is that if what is happening on the frontline remains unmeasured, fundamental problems with the work itself or the work environment go undiscovered. A major study into nursing satisfaction found that being valued and having professional autonomy were viewed as the most important aspects of their work (Kramer & Schmalenberg, 2008). If the workplace fails to meet these needs, employees will leave. Therefore, the identification of factors that may hinder or help the dietetic profession in staying engaged should enable employers to keep their staff in the workforce. This study attempts to identify the factors that make NSW public-hospital dietitians feel satisfied and fully engaged.

1.8 The Methodological Approaches Used to Answer the Question

The overall aim of this research is to investigate how NSW public-hospital dietitians perceive their work and workplace. This issue will be examined from three perspectives: a description of the tasks dietitians undertake in this work context; a measurement of how dietitians feel about their workplace from a state-wide perspective; and an in-depth exploration of some of the elements that contribute to their perception of their workplace. This thesis uses a multimethod approach. This is distinct from a mixed-methods approach. Morse (2003) defines the multimethod approach as: ‘The conduct of two or more research subprojects, each completed
rigorously and complete in itself, in one project. The results are then triangulated to form a comprehensive whole’. Whereas there are now well-accepted guidelines describing the theoretical frameworks that encompass the definition of ‘mixed methods’ (Creswell, 2003, pp.208-227), none of these frameworks fits the design of this thesis, as it is comprised of three studies, each a distinct piece of work with the results integrated Chapter Seven. This also means the literature review in Chapter Two only provides a broad background to the research question and Chapters Four, Five and Six include an in-depth literature review specific to the overall aim of each chapter. Each of the three perspectives uses a carefully considered methodological approach, selected based on a range of factors including; appropriateness and fit of the method to the question, skill of the researcher, available resources and practical considerations. The study of the first element uses a direct non-participatory observational design; the second, a validated structured survey administered across the NSW public-hospital dietetic workforce; and the third, in-depth semi-structured interviews with a sample of dietitians and the application a grounded-theory technique in the analysis of the resulting data. The use of three distinct studies that are integrated at the final analysis stage is a form of triangulation. The term ‘triangulation’ has developed over time to include several interpretations; within this context (a multimethod approach) triangulation refers to integration of the results of several studies at the interpretation phase of analysis (Morse, 2003).

1.9 Conclusion

The findings from this work should provide a greater understanding of what dietitians do in NSW public-hospitals and how they feel about working in this system. It attempts to
provide a new insight into what works well, and not so well, in this work context. It is the intent of the study to assist leaders within the dietetic profession to develop a strategic direction for the public-hospital dietetic workforce- a plan that ensures continual growth and an appropriate level of recognition for a profession that has a distinctive and relevant set of skills to provide to the community. Dietetics has a long and enduring history as an allied health profession that was born in the hospital environment. It is the endeavour of this research to help this profession remain a viable and valued element of the 21st-century public-hospital system.

Table 1.1 outlines the structure of the thesis that follows.

Table 1.1: Structure of the Thesis

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction</td>
<td>The introduction explains how the hospital, as a work context for dietetics, may have an impact on how the profession provides its expertise. This chapter describes the justification of the research question.</td>
</tr>
<tr>
<td>2</td>
<td>Literature review</td>
<td>This chapter covers the broad literature relating to the investigation, addressing; work context, the role of the dietetic profession in hospitals and the gap in the existing literature in how dietitians’ view their workplace. It also provides the reader with the justification of the research and highlights the merits of this study.</td>
</tr>
<tr>
<td>3</td>
<td>Methodology</td>
<td>This chapter provides an outline of the methodological approaches chosen to investigate the research question and the justification for the use of these approaches.</td>
</tr>
<tr>
<td>4</td>
<td>Study one: Description of dietetic work in hospitals</td>
<td>This chapter measures tasks undertaken by dietitians within the public-hospitals system and provides comprehensive details as to where hospital dietitians invest their time.</td>
</tr>
<tr>
<td>Chapter</td>
<td>Title</td>
<td>Purpose</td>
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<tr>
<td>5</td>
<td>Study two: Investigation of level of burnout in dietitians across NSW public hospitals</td>
<td>This is a NSW-wide cross-sectional survey measuring the level of burnout among hospital-based dietitians and examines possible factors associated with this burnout amongst this population. This chapter provides a baseline measure, at a state level, of factors that may be affecting the dietetic workforce.</td>
</tr>
<tr>
<td>6</td>
<td>Study three: Exploration of factors that may affect the way dietitians view their workplace</td>
<td>This chapter describes the findings of the 32 in-depth interviews of dietitians working across a range of practice settings (rural, metropolitan and major city) and experience levels. It uses a grounded-theory technique to identify emerging themes within and across the groups interviewed.</td>
</tr>
<tr>
<td>7</td>
<td>Discussion</td>
<td>This chapter summarises the results of the three studies and integrates the findings of the three studies.</td>
</tr>
<tr>
<td>8</td>
<td>Implications for professional practice</td>
<td>This chapter outlines the major implications for professional practice.</td>
</tr>
<tr>
<td>9</td>
<td>Conclusion</td>
<td>This chapter summarises the main findings, academic contribution, and limitations of the study, and makes recommendations for future research.</td>
</tr>
</tbody>
</table>
2.1 Introduction

The purpose of this chapter is to provide the reader with a background to the area of study, ‘NSW public-hospital dietitians and their workplace: True love or a marriage of convenience?’ This chapter examines the literature in the following areas:

- The relationship between the work environment and the employee.
- How the relationship between employee and work context can be investigated.
- The dietetic profession and its relevance in the setting of healthcare in the 21st century.
- The dietetic work context and its relationship to dietetic effectiveness.
- A review of the literature investigating how dietitians feel about their job.
- A justification for this area of study.

2.2 Literature Review

2.2.1 Work Environment and the Employee

There is a commonly held belief that the workplace can have a significant impact on how employees do their job (Baumgart et al., 2009; Callen, 2008; Champoux & Howard, 1989).
This can range from the extreme example of the cramped inhumane conditions of the workhouses described by Charles Dickens in his famous novel *Oliver Twist* (Dickens & Tillotson, 1982) to the innovative and supportive work culture of companies such as 3M (Grachev et al., 2006). The author was unable to find studies focusing specifically on the Australian hospital work context but there were studies from overseas that have found that the work environment can have a significant impact on a range of performance measures such as infection rates, absenteeism, staff turnover, safety errors and quality of service (Hoff, 2008; Purdy et al.; 2010, Prins et al., 2009). Hospitals viewed as positive and supportive by the employees can influence organisational outcomes such as patient mortality, patient satisfaction and patient-safety (Lundstrom et al., 2002; Tourangeau et al., 2009). The studies in the health-care area have focussed primarily on medical and nursing staff, with very little attention given to other supporting health-care workers such as allied health. Consequently, there is a lack of research into how work settings affect dietitians in hospitals. However, this is an area of investigation that warrants attention, as:

- A significant proportion (43%) of the dietetic workforce is employed with the Australian public-hospital system (Brown et al., 2006).

- Australian hospitals have undergone significant changes in their function and purpose over the last three decades (Hillman, 1999; Braithwaite, 1997; Zajac, 2003) that may affect how dietitians provide their service.

- The dietetic profession has undergone professional development that has changed the way expertise is provided (Schiller, 1985; Gingras, 2005; Licavoli, 1995).
2.2.2 Relationship Between Work Context and the Employee

Work context is a broad term that encompasses both the physical and the psycho-social aspects of the work environment. The physical environment is to a large extent self-explanatory, as it is both tangible and concrete, including such elements as the amount of useable workspace, level of lighting and access to transport. The difficulty lies in the determination of the appropriate amounts or levels of each of these resources required for individuals to work effectively (Lundstrom et al., 2002). On the other hand, the psycho-social context of the workplace is less obvious, as it covers the culture, climate and morale of the workplace. This area of research includes the concept of job-crafting. This is a term that describes how employees engage in the process of changing the boundaries within a workplace so that it makes sense to them. This can be through changing the tasks or relational boundaries; that is, changing the tasks undertaken or the way in which one interacts with others in the workplace (Wrzesniewski & Dutton, 2001). This shaping has been described as containing three distinct perspectives on how work is shaped to the environment: structural, relational and psychological. The structural perspective concerns the discretionary nature and complexity of the work; the relational perspective concerns the interdependence with others within the workplace; and the psychological perspective concerns safety and professional competence. It is not surprising that measuring the array of factors affecting employees and their workplace is multidimensional and complex (Tourangeau et al., 2009).

Investigations within the hospital environment have found that organisational culture can affect the hospital employee’s quality of life (Ji-Young An, 2011). This research indicates that those staff who work in ‘affiliated’ cultures (meaning cultures that support and nurture professional and personal growth) experienced greater levels of job satisfaction. This finding supports studies conducted in the 1980s that researched cultural environments and
coined the term ‘magnet hospitals’: those hospitals that seemed to attract staff and were able to retain them whilst others suffered from high turnover and absenteeism (Lundstrom et al., 2002). Another study examined how the cultures in different specialist areas within one hospital influenced the rate of patient errors. They found that those with a hierarchical culture experienced far greater rates of error. This illustrated not only the degree to which the culture of a workplace influences the professional behaviour of staff, but also how hospitals are heterogeneous in terms of cultures (Hoff, 2008).

The physical issues affecting work performance have received less attention than the psycho-social issues; however, they still represent an important element of the ‘fit’ of an individual and their work context. There is mounting evidence that the physical elements can influence employees’ work performance and satisfaction (Vischer, 2007). This applies equally to the hospital environment (Codinhoto et al., 2009; Kotzer et al., 2011; Lundstrom et al., 2002).

The physical environment of a hospital is important, as the design and layout of the building should meet the basic requirements for that institution to deliver its service. Priorities include the location of different resources, the interconnection between areas that provide patient care, the supporting information systems, staffing locations and level of hygiene. Over time there has been a change in the architecture and functionality of modern hospitals. Where once the architecture of hospitals was driven by medical professionals and hospital administrators who viewed hospitals not as buildings but as new technologies, architecture is now seen as essential in creating a positive environment to assist patients’ recovery (Codinhoto et al., 2009). There has been extensive research into how the work environment, and people who must provide services within this work environment, can affect patients’ wellbeing. But this has been dominated by the focus on individual or team-level of errors rather than taking the broader perspective of a systems-error approach. This
emphasis has been viewed by some as a symptom of the poor understanding of ‘systems’ within the workplace, particularly in the area of hospitals (Waterson, 2009).

2.2.3 Ways to Measure the Relationship Between Work Context and the Employee

A work setting can be studied from a variety of perspectives. The examination can include detailed descriptions of the physical layout, workflow, internal and external processes and description of the culture, morale and climate. One straightforward approach is to simply ask the employees how they feel about their workplace and how the workplace supports or inhibits their ability to perform their job. This can be done using a variety of measures; some examples include level of job satisfaction (van Saane et al., 2003), morale (Baehr, 1958), engagement (Attridge, 2009), efficacy (Probst et al., 2010; Mandy et al., 2004) and burnout (Maslach et al., 2001). These are multidimensional psychological constructs and can overlap and interrelate. The most widely known and used construct is ‘job satisfaction’. The concept of job satisfaction began in the early 1920s in the USA changing over time to eventually become the construct most used in studying organisational behaviour. It primarily investigates work attitude (Wright, 2006): how people feel about their jobs and about different aspects of their jobs. It is the extent to which people like (satisfaction) or dislike (dissatisfaction) their jobs (Spector, 1997). Although there would appear to be a logical link between a happy employee and a productive one, that has yet to be firmly established with empirical evidence (Judge et al., 2001). Yet job satisfaction still remains one of the most popular constructs for investigating the way employees feel about their work.
2.3 The Profession of Dietetics

The dietetic profession developed as result of the recognition of the importance of nutrition and the role it plays during illness. In 1919 the ‘scientific feeding of the sick’ was expected to displace drugs as a treatment option for the hospitalised patient (Arndt & Bigelow, 2007). Since these early days the profession has worked to establish itself as an integral part of the health-care system (Winterfeldt et al., 2011; Pavlinac, 2009). There has been a wide variety of training requirements over the history of the profession, from university-trained graduates with a major in either biochemistry or physiology (Puckett, 1997) to those with nursing/health-related backgrounds who have completed additional training courses. However, in Australia the training requirements have been standardised, and since the mid-1970s all dietitians have been required to complete an undergraduate degree in science with a postgraduate qualification in nutrition and dietetics (Clements, 1986).

One could say the profession of dietetics was ‘born’ in the hospital. The early dietitians’ role was to manage all aspects of therapeutic dietary intervention. This included overseeing the day-to-day dietetic management of patients receiving special or therapeutic diets, educating staff and patients and managing food services. In addition to these areas, dietitians were expected to assist the physician in recommending a suitable dietetic intervention in a range of medical conditions such as diabetes, renal disease and obesity. In Australia, this hospital role remains largely unchanged except for the notable exception of the management of food services. This is now the domain of individuals specifically trained in the hospitality industry. Clinical dietitians play a consultancy role in food service in terms of the menu development, but few are employed within this sector of the public health service (Brown et al., 2006).
Although the profession has been largely based in the biological sciences, there has been a gradual change in the training and role of the profession as it has evolved from didactic education provision to a client-centred therapy approach (Licavoli, 1995). The profession now integrates a range of behavioural-based theories, motivational interviewing (Robinson et al., 2000; Lazovich et al., 2000; Hoy et al., 2005) and telephone counselling into its approach (Kristal et al., 1999; Tsorbatzoudis, 2005). This evolution in practice has been driven by the changes in the work context and the needs of their clients/target groups.

In response to their changing role, the profession has also developed a broader range of skills, particularly in the area of nutrition counselling (Cant & Aroni 2008; Gingras, 2005). As an example the American Dietetic Association developed a framework called the ‘Nutrition Care Process’. This contains the major steps in the provision of dietetic care: nutritional assessment, nutritional diagnosis, dietetic intervention and monitoring and evaluation of the nutrition care plan (Lacey & Pritchett, 2003). Nutrition counselling, one of four components of care provided by the dietitian according to this Nutrition Care Process, is acknowledged as a critical part of the dietitians’ role (Splett & Myers, 2001). This focus represents a significant shift from the profession’s early days, when dietitians were largely viewed as dispensers of nutrition information and nutrition educators (Wilder, 1925; Schwartz, 1981). Nutrition counselling is now an expected skill, and a recent Australian study found most dietitians—particularly more-recent graduates—are confident in their abilities in the area of nutrition counselling (Cant & Aroni 2008). The logical question from these changes is: how does the current hospital context affect the ability of the dietitians to use the full range of their expertise?
2.4 The Work Context of a Public-Hospital Dietitian

Dietitians within the Australian public-hospital system can work in a variety of settings; broadly speaking, this can be divided into either inpatient or outpatient. This classification system is defined by how the patient receives their treatment or intervention. A person who is admitted to a hospital in order to receive their service is classified as an ‘inpatient’; and one who receives the service without being admitted to a hospital bed is called an ‘outpatient’. All hospital activity data is coded according to these two broad classifications. However, these classifications do not always indicate the specific setting where the service may occur, as there is a degree of variation in outpatient treatment locations. Inpatient services are relatively straightforward: the service occurs within the hospital and involves a bed in which the patient is located. By contrast, outpatient services can be in an outpatient consulting room located within the hospital grounds, a community centre that provides a range of services, a purpose-built specialist unit either on hospitals grounds or in a location within the community or in the patient’s own home.

The dietitian can work in any of these settings. According to national activity data most hospital-based dietitians provide their services to inpatient (Health Round Table, 2010). This is notable because dietitians employed within hospitals face the challenge of remaining relevant in 21st-century hospitals. In the early days hospitals were a place of convalescence, and dietetics or ‘diet therapy’ was viewed as the cornerstone of treatment for sick patients (Arndt & Bigelow, 2007). Now, hospitals are largely viewed as diagnostic and treatment centres (Hillman, 1999). The trend towards shorter stays is a deliberate strategy of recent governments, regardless of political persuasion. Hospitals remain a very expensive way to deliver medical treatment and governments must control spending in this area. Outpatient-based or ambulatory services are often the more cost-effective modes of service delivery (Williams, 2008; Sutton et al., 2007; Johnson et al., 2006; Jolly et al., 2007).
Outpatient-based service delivery provides opportunities for dietitians to work in the range of locations mentioned. But there is a lack of research specifically examining whether this trend is occurring. Moreover, how the changing role or work context of a contemporary hospital affects the dietitian operating within that environment is not well studied. Other allied health professions, such as social work, have noted the changes in the hospital role and repositioned their services accordingly to maximise their impact and hence maintain their place within the health-care team (Lechman & Duder, 2009; Berger et al., 2003). Similarly, professions that provide short-term therapy, such as physiotherapy and occupational therapy, have established their niche in acute-care facilities by showing they can reduce the patients’ length of stay (Lau et al., 2008; Denehy and Berney, 2006; Boxall et al., 2004; Griffin, 1993). This poses a challenge for dietetic professionals working within this setting, as dietetic interventions often require longer time frames and hospital management value more highly those professions that help move people out of hospital more quickly.

Australian dietetic professionals have been encouraged by their professional body, the Dietitians Association of Australia, to adopt the Nutrition Care Process developed in the USA as the basis for all client-centred dietetic intervention. However, there has been little work done in how the care process framework operates within the walls of the modern hospital. This is an important area, as nutrition counselling is one of the major components of the nutrition-care process. Despite this, a recent review of the literature found little evidence that dietetic counselling in the inpatient setting leads to improved patient outcomes (Swanton, 2009). Though other studies have found that inpatient-based education has shown promising results (Cook et al., 2006), more work is required to provide substantial evidence. A small Australian-based observational study found that hospital dietitians spent on average 18.8% of their day face to face with their patients, and less than
1% in counselling and education. Most of the work involved patient-management functions such as reading background medical information, documenting care plans and discussing care plans with other staff (Milosavljevic et al., 2011). Interestingly, studies examining dietitians working in hospitals in the USA have shown that dietitians are unsatisfied with the amount of time available to spend with their patients (Dalton et al., 1993; Mortensen et al., 2002a). A study examining the work context of dietitians working in long-term care facilities (equivalent to nursing homes in Australia), found that the work context was fundamental in determining how dietitians carry out their practice. It showed that dietitians in this work setting believed they could not be effective at their job unless they were valued as an integral part of the health-care team working in these facilities (Wassink, 2005). This was viewed as the most critical aspect of their ability to perform their role. Another study in the USA found that the environment had a pivotal role in determining the dietetic practice; the study developed a model of ecological practice to describe these interactions within the environment (Devine et al., 2004). Other studies have identified extrinsic factors within the workplace that lead to dissatisfaction, such as lack of flexibility; rigid autocratic regulations; and access to computer or a desk (Hughes et al., 2011; Cody et al., 2011).

Whilst the profession of dietetics has acknowledged that work context shapes practice (Mason, 1982), little research has been conducted into how work context may affect the ability of dietitians to perform their job. Yet, ironically, the Nutrition Care Process includes the practice setting as an important factor influencing how dietetic services are provided. Therefore, further research into this area may assist the broader profession in identifying possible barriers to the delivery of dietetic care. Once the hindrances and challenges have been investigated, it is then possible to develop strategies aimed at addressing them. This should in turn assist in facilitating positive health outcomes for patients through the optimisation of the delivery of dietetic care.
2.5 The Link Between Effectiveness of Dietetics and the Work Setting

Understanding how dietitians view their work setting is an important first step in identifying factors that may hinder or assist them in achieving their professional goals. Those studies that have investigated the effectiveness of dietetic intervention have used hard-point measures such as changes in nutritional status to measure effectiveness. Most have been conducted in a work/research setting that facilitated ongoing access to the client to ensure that follow-up care was provided (Delahanty et al., 2001; Franz et al., 1995; Holmes et al., 2005; Huang et al., 2010; Ash et al., 2003; van den Berg et al., 2010). The underlying requirement for the majority of dietetic interventions is changing behaviour and this is usually a long-term goal. Whilst some dietetic interventions are short-term, such as the need for enteral or parenteral support (Taylor et al., 2005), and these have shown promising results in reducing length of stay (Somanchi et al., 2011), these types of interventions only relate to a small, select patient group. Most of the interventions are more likely to be long-term in nature. Therefore, the setting in which dietitians operate would ideally support ongoing involvement with clients. However, it is unclear whether ongoing access to patients after discharge occurs, or is even supported, within the current hospital system.

There have been a handful of studies specifically examining the effectiveness of a dietetic intervention over a short time period. Ironically, many of these have not been in those areas of dietetic intervention that require a short time frame such as the provision of artificial feeding (Potter et al., 1998; Lauque et al., 2000). Not surprisingly, those studies that have been conducted in areas requiring longer time frames have shown mixed results (Stratton & Elia, 2007; Stratton, 2005). This is largely because outcome measures
traditionally valued within the medical community are not being affected by nutrition status in the short term (Koretz, 2005). A recent Cochrane review examining the evidence for effectiveness of hospital dietitians in the area of illness-related malnutrition concluded that ‘there was a lack of evidence for the provision of dietary advice in managing illness-related malnutrition’ (Baldwin & Weekes, 2008). This is a concern, as illness-related malnutrition is a major dietetic issue across hospitals within Australia (Vivanti & Banks, 2007; Beck et al., 2001; Neumann et al., 2005; Charlton et al., 2011). In light of the absence of empirical evidence specifically in the area of dietetic effectiveness in the hospital setting, more general work that has established the link between employee satisfaction or perceived effectiveness and patient outcomes may be relevant. There is some evidence suggesting a link between the perceptions of a practitioner and patient outcomes (Chang & Liu, 2008; Chow, 2008; Baruch-Feldman et al., 2002). Therefore, investigating how dietitians perceive their level of effectiveness may shed some light on whether a work setting inhibits or supports their ability to provide an effective service.

2.6 Relationship Between Dietitians and Their Work Context

Most research examining dietitians’ work environment has been undertaken under the auspices of the job-satisfaction construct, although there are a handful that have used other measures such as work value, career involvement, empowerment and engagement. These studies have employed a range of validated instruments to measure satisfaction, engagement and career involvement whilst a handful has used qualitative methodologies including thematic analysis, critical incident technique or grounded-theory methodology. Table One summarises the main published studies to date, a number of doctoral theses and a master’s theses on the topic.
Table 2.1: Major Published Studies of How Clinical Dietitians Feel About Their Job (1968-2011)

<table>
<thead>
<tr>
<th>Publication</th>
<th>Sample Description</th>
<th>Size (response rate)</th>
<th>Instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tansiongkun &amp; Ostenso, 1968</td>
<td>Clinical dietitians, Wisconsin, USA</td>
<td>125 (72%)</td>
<td>Structured survey</td>
</tr>
<tr>
<td>Myrtle, 1978</td>
<td>Hospital dietitians (managers, clinical and food service), California, USA</td>
<td>78</td>
<td>Four open-ended questions</td>
</tr>
<tr>
<td>van Heerden, 1976</td>
<td>Hospital dietitians across the USA</td>
<td>391 (71%)</td>
<td>Structured survey</td>
</tr>
<tr>
<td>Broski &amp; Cook, 1978</td>
<td>Clinical dietitians (graduates of a specific training institution), Ohio, USA</td>
<td>88 dietitians (85%)</td>
<td>Structured survey</td>
</tr>
<tr>
<td>Vermeersch et al., 1979</td>
<td>Outpatient clinical dietitians, California, USA</td>
<td>38</td>
<td>Semi-structured survey</td>
</tr>
<tr>
<td>Calbeck et al., 1979</td>
<td>Administrative, clinical and management dietitians, USA</td>
<td>323 (75%)</td>
<td>Structured survey</td>
</tr>
<tr>
<td>Stone et al., 1981</td>
<td>Early career clinical dietitians, USA</td>
<td>395 (80.1%)</td>
<td>Structured Survey</td>
</tr>
<tr>
<td>Agriesti-Johnson &amp; Broski, 1982</td>
<td>Variety of dietitians including clinical, USA</td>
<td>529</td>
<td>Structured survey</td>
</tr>
<tr>
<td>Scott, 1991</td>
<td>Newly graduated dietitians, Australia</td>
<td>165 (56%)</td>
<td>Structured survey</td>
</tr>
<tr>
<td>Hughes, 1998</td>
<td>Rural dietitians, Australia</td>
<td>140 (30%)</td>
<td>Structured and semi-structured survey</td>
</tr>
<tr>
<td>Barr &amp; Russell, 1992</td>
<td>New graduates, Canada</td>
<td>130 (67%)</td>
<td>Structured survey</td>
</tr>
<tr>
<td>Smart, 1998</td>
<td>Dietitians, Australia</td>
<td>414 (51.7%)</td>
<td>Structured survey</td>
</tr>
<tr>
<td>Mislevy et al., 2000</td>
<td>Clinical manager dietitians, USA</td>
<td>178 (71.5%)</td>
<td>Structured survey</td>
</tr>
<tr>
<td>Whaley &amp; Hosig, 2000</td>
<td>Male dietitians, southern USA states</td>
<td>88 (no response rate recorded)</td>
<td>Structured survey</td>
</tr>
<tr>
<td>Marquis, 2002</td>
<td>Clinical dietitians, USA</td>
<td>25</td>
<td>Critical incident technique</td>
</tr>
<tr>
<td>Mortensen et al., 2002</td>
<td>Dietitians, USA</td>
<td>1321 (50.8%)</td>
<td>Structured survey</td>
</tr>
<tr>
<td>Publication</td>
<td>Sample Description</td>
<td>Size (response rate)</td>
<td>Instrument</td>
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<tr>
<td>Dishion, 2003</td>
<td>Clinical dietitians, USA</td>
<td>542 (68.5%)</td>
<td>Structured survey</td>
</tr>
<tr>
<td>Devine et al., 2004</td>
<td>Clinical dietitians, New York State, USA</td>
<td>24 (purposive sampling)</td>
<td>In-depth interviews</td>
</tr>
<tr>
<td>Sullivan et al., 2006</td>
<td>Renal clinical dietitians, USA</td>
<td>40 (no response rate recorded)</td>
<td>Structured survey</td>
</tr>
<tr>
<td>Wassink &amp; Chapman, 2010</td>
<td>Clinical dietitians, Canada</td>
<td>11 (purposive)</td>
<td>In-depth Interviews</td>
</tr>
<tr>
<td>Mackenzie, 2008</td>
<td>Clinical dietitians, South Africa</td>
<td>340 (22.5%)</td>
<td>Structured survey</td>
</tr>
<tr>
<td>Sauer et al., 2010a</td>
<td>Management, administrative and clinical dietitians, USA</td>
<td>1200 (31.7%)</td>
<td>Structured survey</td>
</tr>
<tr>
<td>Hughes et al., 2011</td>
<td>Clinical dietitians, Queensland, Australia</td>
<td>26 (purposive and snowball sampling technique)</td>
<td>Semi-structured interviews</td>
</tr>
<tr>
<td>Cody et al., 2011</td>
<td>Clinical dietitians, Queensland, Australia</td>
<td>20 (convenience sampling)</td>
<td>Focus groups</td>
</tr>
</tbody>
</table>

Table 2.1 highlights the following:

- the over-representation of the USA in this research area;
- the heavy reliance on quantitative methodologies;
- the relatively dated nature of most of the surveys,
- that some dietitians have been less satisfied with their job than their allied-health counterparts (Broski & Cook, 1978).

These findings may simply be a reflection of:

1. the type of graduate who enters this field, as studies have shown that many work in the public sector because they want to help others and
2. the fact that they measure a very specific set of parameters such as pay and co-workers without exploring how these factors affect dietitians’ level of satisfaction.

The studies also found similar factors influencing levels of satisfaction within the workplace, including level of autonomy, remuneration, career-path options, years of experience, area of work, workload, access to continuing education, level of professional recognition, level of professionalism (Dishion, 2003), time with clients (Sullivan et al., 2006) and being able to make a difference to their clients (Mortensen et al., 2002; Marquis, 2002). It was noted that in those work settings where workload was high and time with the patient was limited, staff had lower levels of satisfaction (Mackenzie, 2008). These findings are not too dissimilar from those concerning other allied-health professions (Rodwell et al., 2009; Denham & Shaddock, 2004; Akroyd et al., 1994).

In some of the studies listed in Table 2.1, it has been suggested that work context or nature of work can have an impact on level of satisfaction. This includes a study of USA dietitians that found that community-based dietitians were more satisfied than their generalist counterparts (Dalton et al., 1993; Agriesti-Johnson & Broski, 1982). However, this has not been a consistent finding, as a recent article examining the level of burnout was not able to find any differences between those in the community setting compared with hospital settings (Gingras et al., 2010). The author did note the sample size was small, which may have prevented any differences being detected with this instrument. A further limitation to these studies is that they were conducted overseas, which makes direct comparison with the Australian context difficult, as definitions of community, public health and hospital are not standardised and can vary widely between, and even within, countries (Hughes, 2004).

To the researcher’s knowledge, only six published Australian studies and one master’s thesis have examined how qualified dietitians in Australia viewed their work. The earliest study, a masters thesis, surveyed 623 dietitians across Australia using both a structured and
semi-structured survey (Scott, 1987). This work found that dietitians had a high level of role disparity (what they thought they should be doing compared to what they actually did), mainly in the areas of professional development, education, research and food-service activities. It recorded moderate levels of satisfaction, with the lowest levels occurring in the cohort less than 25 years of age. The respondents were asked to rank the most important issue facing the dietetic profession. The two most important issues cited were lack of community nutrition positions and lack of professional recognition. A second study surveyed 165 newly graduated dietitians from across Australia (a response rate of 56%) (Scott, 1991), reporting that 77% were either very satisfied or satisfied with dietetics as a career. But, interestingly, only 40% indicated they would make the same career choice again. A third study investigated the issues facing the rural-health dietetic workforce and found that 98% of the respondents enjoyed working in rural practice (Hughes, 1998). The primary purpose of this study was to identify the incentives and disincentives of rural dietetic work. The main finding was that most found the variety of work a major incentive, although lack of professional support and career path were major disincentives. A fourth study examined the factors affecting why dietitians chose to practice in rural settings (Heaney et al., 2004). A fifth study examined whether job satisfaction and career involvement varied across the career stages (Smart, 1998). The two most recent studies were qualitative and conducted within the same state within Australia. One, using in-depth interviews and thematic analysis when investigating the views of 26 clinical dietitians in both public and private hospital settings, found that the main factors associated with increased job satisfaction were opportunities for career progression, flexibility within the workplace, job security and a supportive work environment. It also listed the main sources of frustration as the slowness or inertia of the health bureaucracy and the lack of basic resources such as computers or desks (Hughes et al., 2011). The second qualitative study explored the factors affecting dietetic workforce satisfaction in a group of metropolitan
hospitals within the same capital city. This study was on a small group (20 dietitians from three metropolitan hospitals), it used focus groups and thematic analysis to investigate the factors affecting dietetic workforce satisfaction. It found that a number of factors were associated with workplace satisfaction, including career progression, access to professional development the team and physical environment, workplace flexibility, reward and recognition (Cody et al., 2011).

Although small in number, these local studies provide valuable insight into the factors that affect the job satisfaction of the Australian dietitian working in a range of settings. Of the six studies identified, two were conducted over 20 years ago, and there have been significant changes in the workforce and work settings in this time. One was highly specific in focus, examining the rural dietetic workforce. One focussed on and compared career stages. The remaining two, which were also the most recent, were both relatively small in scope and examined the workforce issues within one state in Australia. The author found no studies investigating the level of burnout in Australian hospital dietitians. This is of particular note as there has been increasing interest in this area, as the change in the role of the public-hospital has meant some significant changes in what and how a dietitian can practice in this environment. Burnout as a construct provides some additional advantages to the study of job satisfaction in that it can measure the practitioner’s level of stress and perceived level of accomplishment (Schaufeli et al., 2009).

2.7 Burnout as a Measure of Employees' Relationship With Their Work Context

There are a number of ways to examine the relationship between employees and their work context, including both qualitative and quantitative methodologies. These can include
using a validated quantitative tool specifically designed to measure how the employees may view their through a variety of measures, including engagement, self-efficacy, empowerment and burnout (Maslach et al., 2001; Chang & Liu, 2008; Prins et al., 2009; Anthony et al., 2001). The qualitative data-collection methodologies could include the use of focus groups, observational studies, case studies or in-depth interviews (Oakley, 2004). The selection of approach and tools largely depends on the scope of the study and the resources available. For this study the Maslach’s Burnout Inventory tool for health services was selected (Maslach, 1996). This tool is composed of three sub-categories of measurement, one of which measures the employees perceived level of personal achievement within their workplace. The advantages of this instrument are that it is a validated tool, it has been used in a wide variety of settings, it specifically measure the construct of personal accomplishment, it has been used and validated across a broad range of professional groups (Estryn-Behar et al., 2007; Spickard et al., 2002; Scutter & Goold, 1995; Rai, 2010; Spooner-Lane & Patton, 2007) and it has been used previously with the dietetic profession (Gingras et al., 2010, Kolodny & Chan, 1996).

Although burnout is a relatively new concept-first developed in the mid 1970s, it has since become well-accepted by the medical community. Maslach developed a tool to measure burnout amongst workers dealing directly with clients. The accepted definition of burnout is ‘the result of chronic stress at the workplace which leads to emotional exhaustion, depersonalization and a lack of perceived personal accomplishment’ (Maslach et al., 2001, p. 402).

The burnout measure has been historically associated with those professions dealing with particularly complex cases, such as mental health workers or social workers (Schaufeli et al., 2009). More recently it has been seen as applicable to other health-care professionals and used to investigate the health of many different health workers such as nurses, doctors and
a range of allied health professionals (Kanai-Pak et al., 2008; Mandy & Tinley, 2002; Scutter & Goold, 1995; Spooner-Lane & Patton, 2007). Dietitians working in the public-hospital system face similar pressures similar to those other hospital staff, such as the increasing demands of an overburdened health system, more complex cases and shorter time frames within which to provide treatment. Additionally, they must cope with changing environments that may or may not support the dietetic process, which means that burnout also relates to this profession (Gingras et al., 2010).

Although the profession of dietetics was developed around the principles of nutritional science, it is both an art and a science (Dietitians Association of Australia, 2012) as it because it must deal with people and how they view food. The profession has come a long way from the days when it simply dispensed nutritional information. It has now evolved to one that deals with the social, psychological, emotional and environmental aspects of eating (Gingras, 2005). This has been reflected in the change of focus of the profession to include nutrition counselling as an essential skill, as it is an integral component of the nutrition care process (Lu & Dollahite, 2010). This means for those dietitians who choose to work in the hospital environment must learn to deal with a work setting that reduces time available to spend with patients and may restrict the range of expertise they can provide.

To date, there have only been two studies specifically measuring the occurrence of burnout within the dietetic profession, both of which were conducted in North America (Kolodny & Chan, 1996; Gingras et al., 2010). Investigating the level of burnout amongst Australian hospital dietitians will help address a gap in the knowledge in this area and provide the opportunity to compare these results to those for dietitians in North America, and for other health-care professions within Australia. In addition, it will provide useful baseline data with regards to how the NSW public-hospital dietitians feel about their workplace in terms of the level of stress they experience.
2.8 Summary of the Literature Review

This literature review provides the reader with a broad understanding of how work context can affect employees. It also provides examples of how the hospital setting can shape the way employees provide their expertise. With respect to the dietetic profession it has described the changes that have occurred within the profession as a whole and to a lesser extent within the Australian context. Internationally there have been a relatively small number of studies investigating how hospital dietitians feel about their workplace. Most of these have been conducted within the USA and have used a structured-survey methodology. Within this research area there have been six Australian studies published over the last 20 years. This paucity of research means there is a significant gap in our knowledge of how the contemporary Australian hospital setting affects the ability of dietitians to do their job. However, this is an area that affects a large proportion of the dietetic workforce, hence the findings of any study have relevance for many within the dietetic profession.
Chapter Three: Methodology

3.1 Introduction

This chapter provides an explanation of the methodology and research design selected to address the question: ‘NSW public-hospital dietitians and their workplace: true love or a marriage of convenience?’ To ensure a complete examination, this question was studied from three aspects using a multimethod approach (Morse, 2003):

1. a detailed account of what the dietitian does within the public-hospital setting;

2. a state-wide evaluation of hospital dietitians’ level of burnout; and

3. an exploration into the factors affecting how hospital dietitians’ view of their workplace.

This chapter is divided into five sections: An overview of the position of the researcher this section, written in the first person; a description of quantitative and qualitative research methodologies, which outlines the basic premise of both approaches and their place in health-science research; and descriptions of the three methodologies used in the studies that make up this thesis. Within each of these three sections is a detailed explanation of the theoretical assumptions of the research methodology, a description and justification of the study design, an overview of the methods used by the researcher and the limitations of the approach and study design.
3.2 The Position of the Researcher

This thesis employed both quantitative and qualitative methodologies. The inclusion of a qualitative methodology requires that the position of the researcher be considered. Therefore this section has been written in the first person as the personal narrative of the researcher, and has been highlighted by a border to indicate the deliberate use of the first person.

I have been a practicing dietitian for 28 years. During this time I have worked in the Australian public-hospital system and private practice. This has taken me across three states within Australia and a variety of work contexts, including an acute tertiary hospital, major regional and district hospitals, a specialist- centre and community settings. I can still remember the first few weeks working as a dietitian. It was in one of the largest tertiary teaching hospitals in Sydney, and my first ward allocation was the intensive care unit. I had been given a list of tasks, which I dutifully completed, but during this time I experienced a sense of ‘not fitting in’, not being a part of the health-care team. At this time, in this department, dietitians wore a white laboratory coat with the word DIETITIAN proudly embroidered in royal blue stitching on the left breast pocket. There were also strict dress-code regulations within the department that dietitians could only wear dresses or skirts and always with stockings. There was a strict ‘no trouser’ policy, as pants were considered unprofessional. This dress code was followed across many major teaching hospitals, largely because the profession of dietetics was a small and intimate group. Most departments were spawned from the one original department.

I put my initial awkwardness down to my relative inexperience and lack of confidence. There were times when I felt my expertise and knowledge were vital, and still remember my very first newly diagnosed diabetic patient, a young man in his early 20s. I would stay
well into the evening so I could discuss his diet with both him and his fiancée. I also
remember being chastised by my supervisor, as working past the normal work hours was
not an acceptable practice. Some lows included being disciplined over selecting fish fingers
for a patient and then seeing my supervisor substitute it with a slice of cheese. I was
amazed at this inconsistency, as from a dietetic perspective the fat quantities were very
similar and, in fact, the fish fingers were a preferable fat source for a patient with diabetes.
What I was learning was the culture of dietetics, the reality of a workplace. What was
emerging was the professional identity of a hospital dietitian as a polite, somewhat
submissive and always appropriate member of the health-care team.

This mixed reaction- pride in my work combined with grave doubts- continued throughout
my clinical years. Sometimes it felt like I was an integral part of the team, well respected
and appreciated; at other times it felt like I was dismissed or overlooked, not really
essential and often viewed as a luxury. It was these experiences that laid the foundations
for the exploration in this piece of research. How do hospital dietitians feel about their
workplace? For the last 17 years I have been in a senior management position, so my focus
has moved from front-line clinical care to the management of a team of dietitians, but I still
include patient contact within my role, as it is still provides a source of enjoyment and
satisfaction.

When I first decided to embark on a DBA, my topic was a comparison of two dietetic
models of care for the treatment of illness-related malnutrition. I took the traditional
quantitative road, as it was well paved, with few bumps or curves, straight and familiar. I
even published an editorial piece on how I managed to undertake a 12-month randomised
controlled trial within existing resources (Milosavljevic, 2011). From my experience I felt
that the work context greatly affected the level of effectiveness that could be attained
through dietetic intervention. However, my eventual question would not follow the straight, well-paved quantitative road, but one very different and far more challenging.

During the coursework component of the DBA I met an academic, who presented a series of lectures on qualitative methodologies. I found these lectures confronting and uncomfortable. This lecturer had a way of engaging his audience that I found almost troubling, as his content challenged my basic belief system, one that until then I had never questioned. Initially I was able to dismiss the exposure to a new way of thinking by a process of rationalisation: ‘I don’t need to know that’. Part of the education involved a small assignment that, surprisingly, I found both engaging and intellectually stimulating, it also demonstrated to me the tremendous potential of this approach in uncovering facts that would otherwise go unrecognised. It was this realization that led to a change in my views on qualitative research. I had often found myself stymied by an unexpected result or unclear finding when using quantitative methods, and I saw here the potential to employ a research method that would help me explore the reasons why.

The reason I chose to undertake further study at this stage in my career was due to my need to further investigate how the hospital as a workplace shaped the way dietitians provided their service. As both a manager and a clinician I was fascinated by how an environment could dictate the way a profession was viewed, and how, in turn, professionals practiced. My work experience to date has led me to the conclusion that work context has a tremendous impact on the effectiveness of dietetics. What I have also witnessed is the changing role of hospitals. I do not believe these changes have enhanced hospital dietetic practice, and may in fact be a potential threat to our continued existence in this work setting.

As an experienced manager and a dietitian, I decided this area was worthy of investigation, as despite the potential of these systemic hospital changes to affect the profession, it is
relatively unexplored. I view this as the ‘boiling-frog syndrome’. The changes have been slow but steady, and many are unaware of the effect they may be having on our profession. We may end up boiled to death before we even realise what has happened, despite the obvious danger signs.

I declare my personal bias, which is that I believe that work context can have a dramatic impact on how effective we are as dietitians. I also believe that the fundamental aspect to the provision of dietetic care is the relationship between clinician and patient (patient rapport), without which we become mere information dispensers. Therefore, I was keen to hear others’ stories and what it was about the dietetics within their workplace that both excited and disappointed them, and to see whether my experiences or beliefs were similar.

What this whole process has taught me is how easily a person can fall into a belief system without ever challenging the basis or rationale behind it. As a science graduate from the early 1980s I was taught the scientific method without any mention of alternate philosophies. This journey has opened my eyes to other perspectives. Until recently I believed in a post-positivist paradigm and the existence of one stable reality, and one truth. However, my perspective has recently changed: I now believe there are may be many realities, as each person has their own view of the world and version of the truth. I also believe my involvement in the research affects the outcome of the research. In this thesis I am involved in the collection and interpretation of data. I believe this involvement may change the outcomes of the work. I conducted all the in-depth interviews and my involvement does add bias as there may be a power differential introduced as a result of my senior position within the dietetic community. This may have changed the interviewees’ responses to be more about what they thought I might want to hear as opposed to what they actually felt. I used a number of technique to reduce this possible bias including an emphasis on storytelling by the participants to provide examples of why they may hold a
certain view and to encourage them to explain their position; establishing a rapport prior by spending time within the department before the interviews; spending additional time with each participant prior to the interview discussing general topics and providing my motivation for undertaking this research; and ensuring the recruitment process only attracted volunteers by using a sampling technique that allowed for self-nomination.

3.3 Qualitative and Quantitative Research Methods in the Health Services

The core business of any health service is the improvement of the health status of an individual or a population; hence research of health services should focus on improving health. Traditionally the quantitative paradigm has been the bastion in health research; however, in more recent times qualitative has become more widely accepted within the health field (Poses & Isen, 1998; Cohen & Crabtree, 2008). This trend has also been reflected within the dietetic profession, (Swift & Tischler, 2010; Draper & Swift, 2011; Fade & Swift, 2011). The health-research field still retains a strong bias in favour of quantitative research, as illustrated by the Australian National Health and Research Council’s levels of evidence (2009), where a systematic review of randomised controlled trials is the highest level of evidence, and qualitative methodologies are considered the lowest, at level IV.

This narrow interpretation of what constitutes evidence does not take into consideration the nature of the question or the area of investigation. For example, if the researcher wants to find out the rate of cancer incidence in a group of workers, a cross-sectional survey design may be appropriate; and determining if a drug is effective as a treatment for a disease state may require a randomised controlled trial. On the other hand, if the area under investigation is how patients feel about their experiences after gastrointestinal
surgery, a qualitative approach may be better suited. Additionally some research questions benefit from a combination of qualitative and quantitative approaches (Creswell, 2003). In the same way in which prospective, longitudinal surveys can inform the results from randomised controlled trials, so qualitative research findings can ‘enhance quantitative survey data by placing the latter into real social contexts and enhancing understanding of relevant social processes’ (Bowling, 2009, p.2). The late-19th-century scientific writer Thomas Henry Huxley wrote of Charles Darwin’s seminal piece of work *The Origin of Species*:

...he has endeavored to determine certain great facts inductively, by observation and experiment; he has reasoned from the data thus furnished; and lastly, he has tested the validity of his ratiocination by comparing his deductions with the observed facts of Nature. Inductively Mr Darwin endeavours to prove that species arise in a given way (Huxley, 1894, p.3).

Charles Darwin appears to have used a number of methods to develop his theory—in other words, a mixed-methods approach.

3.3.1 Theoretical Perspectives of Quantitative and Qualitative Research Paradigms

It is important to consider the theoretical framework of any research method. This thesis used both quantitative and qualitative methodologies to examine different facets of the question. Therefore, a basic understanding of the ontological and epistemological positions of each methodology was required. Although these positions can differ between the qualitative and quantitative paradigms, they can also share several similarities. The ontological position centres on the discussion of whether there is a single objective reality or multiple realities, and the epistemological question concerns the nature of knowledge and how this knowledge can be obtained (Guba, 1994). In health research, knowledge production has been dominated by deductive reasoning, often called ‘hypothetical-
deductivism’ (Willig, 2001, p. 4). In this paradigm the researcher proposes a hypothesis; through testing, the hypothesis can be either supported or rejected, but it can never be proven. That is, the scientific method does not prove the existence of a reality, it just presents an argument supporting that position or view (a well-substantiated hypothesis). This is an important fact that even those well versed in scientific method can overlook.

Within the quantitative school there can be two types of realism: positivism and post-positivism. The former views truth as absolute and values the original and unique aspects of scientific research; this view does not allow for the researcher’s personal point of view or emotions to enter the process. The second position, post-positivism or realism, believes there is an objective reality that can be captured but that it is impossible to capture in its pure, unbiased form (Guba, 1994).

The quantitative paradigm assumes a single stable reality; in other words, it has a realist ontological perspective. In contrast, the qualitative paradigm acknowledges that multiple realities can exist, a relativist ontological perspective. The qualitative paradigm favours inductive reasoning that is, the data generates, rather than tests, the theory (Pope & Mays, 1995).

3.3.2 Strategy or Line of Enquiry

The term ‘strategy’ (or as it is sometimes termed, ‘line of enquiry’), relates to the way in which data is analysed. In the qualitative paradigm there are many ways to analyse data, including ethnography, phenomenology, grounded theory, biography, memory work and case studies (Grbich, 1999, pp. 141-214).

The final choice of methodological approach for this study was based on the nature of the question. The thesis question was ‘NSW public-hospital dietitians and their workplace: true love or a marriage of convenience?’ This is a broad question that examines a specific
professional group–dietitians–within a defined work context–the NSW public-hospital system. Therefore it was examined from three perspectives:

1. What does a typical hospital dietitian do in a day?

2. What is the level of burnout amongst NSW public-hospital dietitians?

3. How do public-hospital dietitians feel about their workplace?

There were three distinct methodological approaches employed for each question. The use of a number of different methods has the advantage of exploring a topic from a variety of perspectives and ensures the best fit between the question and the method of exploration. Within the literature the use of both qualitative and quantitative methodologies is viewed very favourably, and it has been noted that methodological pluralism can enrich a study design (Pope & Mays, 1993).

Table 3.1 summarises the research methods used in this study. Each method is discussed in detail in the sections that follow.

3.3.3 Summary of Methods Used in This Thesis

Table 3.1: Methods Employed in This Thesis

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Question</th>
<th>Data-Collection Method</th>
<th>Methodology/Line of Enquiry</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Four</td>
<td>What does a typical hospital dietitian do in a day?</td>
<td>Observational</td>
<td>Participant observational</td>
<td>Quantitative</td>
</tr>
</tbody>
</table>
### Chapter 5: Data-Collection Methodologies

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Question</th>
<th>Data-Collection Method</th>
<th>Methodology/Line of Enquiry</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Five</td>
<td>What is the level of burnout amongst NSW public-hospital dietitians?</td>
<td>Structured survey</td>
<td>Observational study</td>
<td>Quantitative</td>
</tr>
<tr>
<td>Six</td>
<td>How do public-hospital dietitians feel about their workplace?</td>
<td>In-depth interviews</td>
<td>Grounded-theory approach</td>
<td>Qualitative</td>
</tr>
</tbody>
</table>

As this is a multimethod study the timing of the studies are not planned but rather is based on the availability of the researcher and subjects. The direct observational study will be conducted over a three-year period, and the timing of this study is independent of the burnout or in-depth interview studies. The burnout survey study will be completed prior to the in-depth interviews, as findings from the burnout survey may determine the sampling procedure used in the in-depth interview study. However, the in-depth interviews are not reliant on these findings, unless they prove to be relevant. The findings of the three studies will be combined at the data-interpretation stage (Chapter Seven).

### 3.4 Observational Study

To answer the question ‘what does a typical hospital dietitian do in a day?’, a participant-observation technique was adopted. The term ‘participant observation’ is sometimes interchanged with ‘ethnography’; however, significant differences exist between the two terms. While both are derived from the discipline of anthropology, ethnography is a
methodology while participant observation refers to a specific technique within this methodology (Grbich, 1999). The range of techniques used in ethnography (including participant observation) can be based on different epistemological positions, as there is no general consensus as to what should constitute the source of knowledge for these techniques (Savage, 2000). There have been numerous studies within health research that have employed observational techniques; these have sought to describe the daily activities of groups of workers (Zhu et al., 2008; Hollingsworth et al., 1998; Chaboyer et al., 2008). In these studies, there is an assumed realistic ontological position and either a positivist or post-positivist epistemological stance. Ontologically, the postpositivist paradigm assumes that there is a single, tangible, objective reality (Wainwright, 1997), but it accepts the notion of falsification.

In participant-observational studies there is a range of data-collection techniques including direct, critical incident, self-reported and work-sampling. The researcher can take a direct approach as either a participant or non-participant, in a covert or overt manner, and data can be collected at one time or over a series of time periods. This accurate but labour-intensive approach has been used in health settings, as it captures the many work activities of doctors, nurses and other health-care professionals. Although this can yield accurate data with respect to time, type and range of tasks undertaken, there are a number of limitations.

These include the possibility of the introduction of bias from the researcher, the effect the observer may have on the study participants and the significant resources required to undertake a continuous-observational study. Other observational approaches include the critical-incident technique, which captures information around certain events or incidents and enables staff to better understand their roles in the clinical setting as it explores their practice from a variety of roles (Marquis, 2002). However, this technique requires more skill
from the researcher in exploring the incidents and analysing the findings (Kemppainen, 2000). Another method is work sampling, which collects data at specific time intervals. It is less resource-intensive and intrusive than direct-observational methods, and if carried out in a systematic fashion can yield results comparable to those of the direct-observational approach (Ampt et al., 2007). More common and even less resource-intensive is self-reporting, which requires the participants to record their own activities. This can be done with a personal digital assistant, paper-based statistics or diary entries. While this is less reliable and subject to respondent bias, it has the advantage of being less resource-intensive (Finkler, 1993; Ampt et al., 2007).

3.4.1 Justification of Study Design

The approach selected for this study was a continuous, overt, direct, non-participatory observational study. The rationale behind this decision was based on the following:

- Only simple descriptive data was required.
- There was ready access to and an adequate supply of suitably skilled people.
- The sample population was limited to one single service.
- The data could be collected over a three-year time frame.
- This approach appropriately met ethical considerations.

Taking all the factors into account, the direct-observational technique was selected, as the main purpose of the study was to describe in detail the day-to-day work activities of a typical hospital dietitian. To the author’s knowledge there has only been one direct-observational study published on hospital dietitians using this approach (Milosavljevic et al., 2011). This method could provide details of the type of tasks that typically occupied the day
of a dietitian. This information would be a useful baseline for the subsequent studies, which would examine more closely how dietitians in this hospital system felt about their role. The ready access to students to undertake the fieldwork meant that this study was within the resources of the researcher. Due to the sensitive nature of the work, it could only be attempted if there was a culture of trust and transparency in the department being observed. This requirement limited the sample to a well-known dietetic service managed by the researcher, which also introduced a power differential. The time frame of the study was over a three-year period from 2008 to 2010 inclusive, which suited a discontinuous method. Ethical considerations were the primary issue in conducting such a study. Therefore, care was taken in ensuring that participation in the study was voluntary. All participants were provided with ongoing opportunities to withdraw their consent. The data was pooled to reduce the possible identification of the participating individuals. The operational details of the methodology are outlined in Chapter Four.

3.4.2 Limitations

Non-participant observational studies have several limitations: they only record a specific period in time, are highly dependent on the skills of the observer, and may be affected by the inherent bias of the observer. Moreover, this study was conducted within the one nutrition service; the sample may not be representative of all dietitians working in the NSW public-hospital system.

3.5 Cross-Sectional Survey

The aim of Chapter Five is to measure the prevalence of burnout amongst NSW public-hospital dietitians. A cross-sectional structured survey was used, as it attempts to quantify
relationships between variables of interest. The study is only descriptive, as no attempt is made to change the behaviour or conditions. This type of study is classed as an uncontrolled, non-random observational study (Campbell et al., 1969). It cannot draw causation but only describes associations between the variables of interest in the study.

3.5.1 Justification of Study Design

The use of cross-sectional surveys has been well established within health-service research and is used primarily when investigators are interested in the possible association between variables (Mann, 2003). Examples include whether smoking is associated with an increase risk of lung cancer, if a certain diet is associated with lower risks of cardiovascular disease, or (as in this study) which factors may increase or decrease the likelihood of burnout in the workplace. Chapter Five investigates whether there is an association between the psychological construct of burnout and a range of variables including gender, hospital types, seniority, marital status, number of children and area of work.

3.5.2 The Relevance of Burnout

Burnout is a well-established phenomenon and has been extensively studied for over 35 years. It has been estimated that 6,000 books, chapters, dissertations and journal articles have been published on burnout (Schaufeli et al., 2009). For this study the Maslach Burnout inventory tool for health services (MBI-HSS) was selected (Maslach, 1996). This instrument was designed to measure the hypothetical aspects of the burnout syndrome for employees in the health services. It contains 22 questions or items that measure three burnout sub-categories: depersonalisation (DP), which itself is comprised of five items; emotional exhaustion (EE), comprised of nine items; and personal accomplishment (PA), comprised of eight items. Depersonalisation measures negative, cynical attitudes toward treating patients. Emotional exhaustion measures the depletion of energy reserves that is
associated with feeling drained at work. Personal accomplishment measures how well a person feels about their level of accomplishment in working with their patients.

3.5.3 Validity and Reliability of the Burnout Tool

Reliability and validity are important considerations when undertaking studies using an instrument, in this instance a structured survey. Reliability refers to the ability of the instrument to produce consistent results, and validity concerns the crucial relationship between the concept and the indicator being examined, and looks at whether the test actually measures what it claims to measure (Carmines & Zeller, 1979).

The reliability and validity of the MBI-HSS has been well established within the literature amongst a range of health professionals including social workers, psychologists and counsellors (Maslach, 2006). The internal consistency as measured by the alpha Chronbach is: .90 for emotional exhaustion, .79 for depersonalisation and .71 for Personal Accomplishment. Additionally the test-retest reliabilities over a four-week interval are .82 for emotional exhaustion, .60 for depersonalisation, and .80 for personal accomplishment (Maslach & Jackson, 1986). The convergent validity was tested by comparing employees’ MBI scores to a variety of other measures including coworkers’ descriptions of employees’ reactions to clients, spouses’ descriptions of employees’ behaviours at home, case load sizes, and amount of time spent in direct contact with clients/patients. The MBI consistently measures the same construct that is assessed by other burnout measures (Schaufeli et al., 1993; Schaufeli & Van Dierendonck, 1993). It is the emotional exhaustion dimension that has been shown to have the strongest correlation with other self-report measures. There is a weaker relationship between the MBI scores to ratings by peers and experts (Schaufeli et al., 1993) however; they have been described as satisfactory in the technical manual (Maslach et al., 1996).
3.5.4 Critique of the MBI-HSS Tool

The MBI-HSS is not without its critics, and debate exists surrounding the dimensionality and scope of the tool. Some scholars argue that burnout is a one-dimensional phenomenon, in other words, simply emotional exhaustion. However, a study using confirmatory factor analysis found emotional exhaustion and depersonalisation were distinct but highly correlated, and both were more highly correlated with psychological and physiological strain than personal accomplishment, which was more closely related to control-oriented coping (Lee & Ashforth, 1990). Because the tool is widely recognised amongst many health-care workers (Schaufeli et al., 2009), including dietitians (Gingras et al., 2010, Kolodny & Chan, 1996), it was an appropriate choice of tool for this population.

3.5.5 Limitations

As this was an observational study, only associations can be drawn between variables and results. The voluntary nature of the survey design could introduce a selection bias, as only those interested or willing to participate may have contributed. Additionally, the results may not be representative of the entire population, limiting the generalisability of the findings. Finally, respondents may not have been truthful in their responses. Chapter Five outlines the operational details of how this study was undertaken.

3.6 In-Depth Interviews

In-depth interviews were chosen as the method of data collection for Chapter Six, as the main aim of this chapter is to explore the possible reasons behind how dietitians felt about their workplace. As the primary purpose of an interview was to ‘gain information on the perspectives, understandings and meanings constructed by people regarding the events
and experience of their lives’ (Grbich, 1999, p. 85), it appeared to be a suitable method to employ for this study. This approach has a number of advantages, including providing the researcher with the ability to match the questions with the interviewee. It supports the exploration and building of an idea through an in-depth examination of the answers provided by the interviewees. The in-depth interview is often chosen when exploring intimate areas of knowledge. It is therefore important to develop a rapport and level of trust with the interviewee, and should take into account both the researcher’s and the participants’ emotions in the data set and analysis (Dickson-Swift et al., 2008). This study used a range of questioning techniques, including elaboration, clarification, reflection and repetition to gain as much insight during the interview process as possible.

In-depth interviews were selected over other possible methods such as focus groups because of the highly personal nature of the topic and the practical issues of accessing the subjects within their workplace. It was felt a focus group may have been more problematic in terms of eliciting a range of emotions, and it would have been logistically more difficult to create groups of similar backgrounds and experiences. Also, focus groups cannot explore questions in detail, nor can an interesting lead be followed with subsequent probing. Focus groups also suffer from the possibility of only hearing a dominant view, particularly if the alternate views are less acceptable or rarely externalised (Grbich, 1999). The decision was thus made to use one-to-one interviews, as there was greater potential for far richer and denser data because the researcher and participant had the opportunity to explore topics in more depth in a secure environment.

3.6.1 Justification of Grounded Theory Approach to Data Analysis

The question for Chapter Six is the exploration of how NSW public-hospital dietitians felt about their workplace. This is a natural extension of Chapter Five, which measures the level
of burnout across all NSW public-hospital dietitians. The factors associated with higher levels of burnout identified in Chapter Five are used as the basis for more in-depth exploration into possible reasons for their importance. That is a relatively new and unexplored area: a literature search found fewer than two dozen peer-reviewed articles and four theses in the area of job satisfaction. The majority of these were US-based, quantitative and published over 20 years ago. Only six were conducted in Australia, none of which specifically focussed on NSW public-hospital dietitians and their workplace. Therefore there was a notable gap in the Australian literature in this area. The methodology chosen was drawn from the principles of grounded theory (GT). This decision was based on a number of factors:

- It is a technique recommended when undertaking research on small-scale, everyday life situations where little previous research has occurred and where processes, relationships, meanings and adaptations are the focus.

- It is well-accepted within the health-science literature and has been used extensively within this area to investigate how employees view their workplace (Wassink & Chapman, 2010; Probst & Griffiths; 2009; Swennen et al., 2011; Devine et al., 2004; Wikström, 2008).

- There is a well-defined systematic GT process outlined by Strauss and Corbin (1990) that provides the inexperienced researcher with clear guidelines.

Grounded theory was developed by two social scientists, Barney Glaser and Anslem Strauss, who describe it as ‘the discovery of theory from data systematically obtained from social research’ (Glaser & Strauss, 1967, p.2). This approach has developed over time; Strauss and Corbin themselves later wrote a second text that described grounded theory as ‘one that is inductively derived from the study of the phenomenon it represents. That is, it is
discovered, developed and provisionally verified through systematic data collection and analysis of data pertaining to that phenomenon’ (Strauss & Corbin, 1990, p.23). GT methodology has steadily grown into what Bryant and Charmaz (2007) term the ‘the GT family of methods’ (p.11). They outline the main components of this family of methods as: employment of an iterative process that involves going back and forth between more progressively focused data, and hence successively more abstract categorisations; the use of the inductive method; acknowledgment of the importance of theoretical sensitivity; the emergence of codes, categories and concepts, the use of theoretical memos; and verification and validation. However, most importantly, it must be grounded in the data and involve theorising or the creation of a product. The approach used in this study follows the basic outline as described by Strauss and Corbin (1990), as it ‘uses a systematic set of procedures to develop an inductively derived GT about a phenomenon’ (p.24). Chapter Six includes a detailed account of the steps, field notes and theoretical memos.

3.6.2 Selection of Participants

According to Glaser and Strauss, (1967), theoretical sampling in GT method is ‘the process of data collection for generating theory whereby the analysts jointly collects, codes and analyzes his data and decides what data to collect next and where to find them in order to develop his theory as it emerges’ (p.45). In the case of this study, the data collection was done using one-to-one interviews with subjects selected prior to the commencement of the process. Following the strict definition of theoretical sampling would mean that analysis of the first interview would assist in selecting the next interviewee, and this would continue until theoretical saturation was reached. However, the purpose of this study was to explore the possible reasons behind the factors identified via the state-wide cross-sectional survey results from Chapter Five. It was these factors that formed the basis of the selection criteria for the interviews. Therefore, a purposive sampling technique was used, which meant the
participants were selected based on certain characteristics or a specific criterion. This type of approach also served as a way to ensure rich and dense data in that ‘purposive sampling addresses specific purposes related to the research questions; therefore the researcher selects cases that are information rich in regards to those questions’ (Teddlie & Tashakkori, 2009, p.173). Obtaining rich data on the possible reasons behind the cross-sectional survey results, it required dietitians with certain levels of experience and from a range of public-hospital types. The purposive approach was also more practical, as one-to-one interviews required access to remote and varied locations across NSW. This was only achievable if there was a scheduled set of interviews that included all the specific types of subjects required.

3.6.3 Analysis of Data

The approach used in this study is based largely on the GT method described by Strauss and Corbin (1990), with the exception of the theoretical sampling. The underpinning principles followed were ‘constant comparative analysis’ and the emergence of ‘categories’ using the movement between initial codes and the abstraction process; development of themes; and the emergence of a core category. The approach contained a series of defined steps, including:

a) transcription of each interview verbatim,

b) independent initial coding by each researcher,

c) team coding of transcripts,

d) review of each coding by the team and individual researchers,

e) ongoing inclusion of field notes during the interview and analysis processes, and use of theoretical memos at each analysis session and when data was reviewed,
f) constant comparisons with final categories and original transcripts,

g) development of five final categories or themes,

h) linking of themes to an underpinning core category,

i) confirmation of the model with interview data,

j) contrast and comparisons with the different dietitians, presentation of findings to original subjects for review and refinement of model and to broader groups of allied health in similar work settings and

k) final relation of the findings to evidence from the published literature.

3.6.4 Validity of grounded-theory research

Quantitative methodologies are based on the scientific method, or positivism. These methodologies use validity and reliability as a test for the rigor or robustness of their findings. They are based on the assumption that the researcher holds a realist ontological position; that is, the researcher believes that an objective reality exists and that this is knowable and measurable. The notions of validity and reliability fit well into this paradigm. Conversely, qualitative researchers may not hold this ontological position, and hence the application of this definition of validity and reliability may not fit. If the researcher holds the position that the participants socially construct reality, there are thus multiple realities or truths, and reliability as a concept will not apply. As grounded-theory (GT) is a qualitative methodology, the traditional quantitative measures of reliability and validity are not necessarily appropriate. When GT was first developed, it was argued that high-quality GT research should be able to demonstrate credibility, plausibility and trustworthiness (Glaser & Strauss, 1967). This has since been expanded to incorporate many additional facets of what constitutes quality research, including fit, applicability, development of concepts,
contextualisation of concepts, the flow of logic, depth, variation, creativity, sensitivity and evidence of memos (Corbin & Strauss, 2008). It is also noted that these are not to be seen as hard-and-fast rules, but general guidelines by which to assess a particular piece of GT research.

Additionally the method of triangulation to improve the validity of findings in quantitative methodology may involve using different methodologies to examine the same question. However, in qualitative research, triangulation may include multiple methods of data collection and data analysis, but does not suggest a fixed method for all researchers (Patton, 1999). Options of qualitative triangulation could include the use of several researchers in the analysis of the data or the inclusion of the participants’ views on the results. Thus, methods chosen in triangulation to test the validity and reliability of a study depend on the criterion of the research. In the case of this thesis triangulation refers to integration of the results of several studies at the interpretation phase of analysis (Morse, 2003).

3.6.5 Ethical Considerations

The line of enquiry and analysis meant that this study explored some very personal areas. The face-to-face interviews allowed the researcher an opportunity to delve deeply into reasons for a belief or behaviour, but this was also a double-edged sword, as the level of depth also created the risk of discomfort to the subject. In order to minimise this possibility, all participants were aware they could withdraw at any time if they felt uncomfortable or changed their mind. Great care was taken to ensure that all participants were provided with adequate written information well before the scheduled interview. Additionally, just prior to the commencement of the interview, the subjects were given an explanation of the scope and details of the study, and given further written information. These details
included a section on when and how they could withdraw from the study. At the beginning
of each session the researcher attempted to build a rapport and a level of trust by
explaining some of the background and personal motivation for undertaking this type of
research. Also, confidentiality was assured, as no personal details would be recorded and
only pseudonyms used in the final write-up. The University of Wollongong, South Eastern
Sydney Human Ethics committee approved this research (ethics application number:
HE10/196).

3.6.6 Theoretical Saturation

The grounded-theory approach uses iteration and sets no clear boundary between data
collection and analysis; thus; saturation may not always obvious even to experienced
researchers. According to Glaser and Strauss (1967), ‘the criteria for determining
saturation... are a combination of the empirical limits of the data, the integration and
density of the theory and the analyst’s theoretical sensitivity’(p.62). Simply put, theoretical
saturation occurs when no new categories emerge from the data.

3.6.7 Theoretical Sensitivity of the Researcher

A critical component of GT methodology is theoretical sensitivity. This refers to the
personal qualities of the researcher: those qualities that give the researcher insight and the
ability to find meaning within the data (Strauss & Corbin, 1990). Glaser and Strauss (1967)
asserted that ‘a sociologist should also be theoretically sensitive so that he [sic] can
centralise and formulate a theory as it emerges from the data. Once started, theoretical
sensitivity is forever in development’ (p46.). It includes both the personal and professional
experience of the researcher. It also requires a careful balance between a researcher’s own
bias or belief and what the data reveals. Strauss and Corbin argue that this can be achieved
by using the constant comparative method to ensure that the emerging categories are
linked to the data.

Another issue within the literature has been the debate as to what constitutes the
appropriate level of prior knowledge required before commencing a study. Some have
interpreted this to mean there should be no reading within the field; that is, the researcher
should have no preconceived problem statement, interview protocols or extensive review
of the literature (Bryant & Charmaz, 2007). However, the practicality of this has been
questioned. The alternate argument is that the development of theoretical sensitivity
requires some familiarity with the relevant literature. As one author said when discussing
the need for researchers to accumulate knowledge not dispense with it, ‘There is a
difference between an open mind and empty head’ (Dey, 1993, p 65). The author
conducted all interviews. The selection process was arranged through each site manager
with no involvement from the author. The only request made by the author was that there
was an interviewee from each career stage; however, if this was not possible it was not
pursued. At the time of the interviews the author was employed as a senior manager within
one of the local health districts within NSW. It was noted there was a power differential
between the interviewees and the interviewer. Also for most of interviewees there was
also an age difference of about 20 years, which was also a factor to be considered.

3.6.8 Position of the Researcher

When applying a GT approach, the researcher can hold a number of ontological positions.
In this study the approach involved exploring the views of a group of individuals; hence, it
was their reality that was being examined. Therefore, the researcher, who is also the
author, had a relativist ontological position, as each dietitian had their own set of
experiences and views about their role within the hospital system.
3.6.9 Limitations

GT has a number of limitations, including the assumption that the respondent is being honest and not simply meeting the researcher’s expectations or social norms. Additionally, there may be a power relationship that could influence the responses. Therefore, it is important to be aware of the relationship between the researcher and the interviewee. Also, the researcher must be reflective when reviewing the findings, which requires the researcher to consider how their own experiences and social, cultural, political and linguistic context of the interview may affect their interpretation (McNair et al., 2008). Finally, the results are not generalisable.

3.7 Conclusion

The aim of this thesis is to investigate how NSW public-hospital dietitians felt about their workplace. This question is examined from three distinct perspectives: the day-to-day activities of a hospital dietitian, a state-wide survey measuring the level of burnout amongst NSW public-hospital dietitians and an in-depth exploration of how some of these dietitians feel about their workplace. Chapter Three outlined in detail the three methodological approaches selected to investigate each of the perspectives. It also provided a rationale and justification for each method chosen. Chapters Four, Five and Six provide further details on the operational aspects of the three studies undertaken as part of this thesis.
Chapter Four: A Day in the Life of a NSW Public-Hospital Dietitian: A Direct-Observational Study

4.1 Introduction

This chapter provides the reader with a comprehensive overview of the daily tasks undertaken by dietitians working in a group of NSW public-hospitals. Prior to this work, there has been no research published on this topic in the Australian context. The Dietitians Association of Australia, the professional body for Australian dietitians, describes on their web page the type of work dietitians, including those involved with patients, do in a variety of settings. The description for work with patients is broad and, although applicable to the work of a hospital-based clinical dietitian, it is very basic, and describes the tasks as ‘assessing the nutritional needs of patients, planning appropriate diets and educating patients and their families’ (Dietitians Association of Australia, 2012). This definition does not include details about the scope of dietetics as it is practiced in the hospital work setting. This chapter describes the observational study undertaken to elucidate the details of what constitutes a typical day in the life of a group of NSW public-hospital-based dietitians. It is the first study of its kind to be completed within this particular setting, and the initial phase of the work has been published (Milosavljevic et al., 2011).

4.2 Work Context of the Public-Hospital Dietitian

This study examines the work context of the Australian public-hospital dietitian. This is particularly noteworthy as approximately 43% of the Australian dietetic workforce is
employed within this work setting (Brown et al., 2006). Some studies have suggested that work context helps to shape dietetic practice (Devine et al., 2004; Wassink & Chapman, 2010), yet little research has been undertaken in exactly how dietitians provide their expertise in the public-hospital setting.

Those studies that have examined hospital dietetic work practice have been conducted overseas in the United States of America, Canada or the United Kingdom. The most common methodology used has been self-reported data collection that focussed on detailed descriptions of the type and range of services (Elliot et al., 1978; Shanklin et al., 1988; Schwartz, 1981), the efficiency and efficacy of service (Meyer & Olsen, 1989) the determination of appropriate staffing levels (Towers, 1987; Compher & Colaizzo, 1992; Somers & Mulroney, 1983; Schiller, 1985) and an investigation of role expectations (Schwartz, 1981). These studies do provide an interesting historical perspective, but they are neither current nor reflective of contemporary dietetic practice in Australian public-hospitals. Also there is a question as to the reliability of reported data, as it has been shown to reflect how the practitioner wants to appear, which is not necessarily an accurate measure of what actually occurs (Ampt et al., 2007; Finkler, 1993).

Although there is a lack of empirical data describing the minutiae of work practices, there have been attempts at the local level within the NSW public health system to capture work activity using either information systems developed in-house or established systems. Most hospitals have local information systems that manager’s use as a way to prioritise resources within their service; however, these focus on activity measures such as number of interventions or the total number and type of patients seen.

There have been attempts to standardise the information reported within allied health across Australian hospitals. In 1998 a not-for profit company was founded by a group of senior managers from New Zealand and Australia. The overall aim was to share information
across hospitals to ultimately improve health-care services. Within their scope they have an allied health division that shares activity data collected using a self-reported methodology, for benchmarking purposes (Health Roundtable, 2012). Participation is voluntary and access to this data is restricted to members of the consortium. It relies on all participating hospitals adhering to the same guidelines and definitions when recording activity data. Although this data is extremely useful when looking at activity levels, it does not include the detailed description of tasks and time required for each activity.

A number of observational studies have been conducted on the medical (Westbrook et al., 2008; Zhu et al., 2008; O'Leary et al., 2006; Gottschalk and Flocke, 2005; Melgar et al., 2000; Brown, 2000; Aharonson-Daniel et al., 1996) and nursing professions (Chow, 2008; Desjardins et al., 2008; Tang et al., 2006; Caughey and Chang, 1998), but fewer on allied health professions (Mehta & Lee, 2003), and to the knowledge of the author only one on dietetics (Milosavljevic et al., 2011). Yet this type of methodology can yield rich data on the internal processes within an organisation. One study showed how poor workflow design had a direct impact on the amount of work and types of tasks undertaken (O'Leary et al., 2006). Another study found that medication errors were largely caused by environmental factors rather than human error (Roseman & Booker, 1995).

Investigating the work context of the Australian public-hospital system requires an understanding of the range of health services that exist. These services range from acute care and specialists services to public health and community programs. These can be classified, broadly speaking, on how the patient/service recipient receives their treatment or intervention. A person may receive treatment/intervention as either an inpatient (admitted patient care) or as an outpatient. People admitted to a hospital to receive their service are classified as ‘inpatients’; those who receive the service without being admitted to a hospital bed are called ‘outpatients’ (Australian Institute of Health & Welfare, 2010).
Inpatient services are relatively straightforward: the service occurs within the hospital and involves a bed in which the patient is located. During their admission a patient may receive services from a range of health-care professionals, including the dietitian. These services are provided at the patient bedside, or in the case of highly specialised intervention or treatments, where the expertise or resources are located, but these are usually within the hospital grounds. By contrast, outpatient services can include a service located in an outpatient consulting room within the hospital grounds, in a community centre near or distant from the hospital, via telephone, in a purpose-built specialist unit, on hospitals grounds or in the community, in the patient’s own home. Therefore, this study attempted to include the full breadth of hospital-based dietetic services to gain a greater appreciation of the range and type of tasks undertaken by a dietitian in a typical day.

4.3 Aim

The overall aim of this thesis is to investigate how NSW public-hospital dietitians view their workplace. Therefore, given the absence of published data on what an Australian hospital dietitian does, the first part of the thesis was a close examination of the activities they undertake. Hence, the aim of this chapter is to describe the range of tasks undertaken by NSW public-hospital dietitians. The objectives are to:

- Provide the profession with an accurate picture of where hospital dietitians spend their time so that managers and policy-makers can make more-informed decisions.
- Compare the results between dietetic inpatient and outpatient services.
• Compare the results to other health-care professionals within a similar work setting.

4.4 Method

This study uses an ethnographic methodology. The rationale and justification of this approach have been discussed in detail in Chapter Three. The study was a non-random, direct, non-participatory, overt, discontinuous observational study design.

4.4.1 Setting

This study was undertaken across seven work sites: three hospitals: a major referral centre of 500 beds, one regional hospital of 54 beds and one rehabilitation hospital of 40 beds; two specialist outpatient services (diabetes) and two ambulatory-care services. All were located within one local health district in a regional area within New South Wales, Australia. The dietitians observed in this study were classified as providing either ‘inpatient’ or ‘outpatient’ services, determined by the type of patient seen by that dietitian.

4.4.2 Sampling Procedure

A convenience sampling technique was used, which meant observers were allocated to dietitians based on the availability of the dietitians at each site.

4.4.3 Subjects

A total of 17 dietitians, ranging in work experience from three months to 30 years, were included in this study. Of the 17 dietitians, nine worked in the inpatient setting and eight worked in the outpatient setting (Table 4.1). The intent was for every dietitian within the
study to be observed for at least one working week. However, the practical considerations of the study design meant that if a dietitian was unavailable for the week, another dietitian was allocated to the volunteer. The rationale behind this decision was that the aim of the study was to examine the practices of a group of dietitians, not the differences between individuals. On average each of the participating dietitians was observed for 5.3 days (range 2-12).

Table 4.1: Details of Participants and Locations

<table>
<thead>
<tr>
<th>Details</th>
<th>Site 1</th>
<th>Site 2</th>
<th>Site 3</th>
<th>Site 4</th>
<th>Site 5</th>
<th>Site 6</th>
<th>Site 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service description</td>
<td>Long-stay aged care</td>
<td>Rehab</td>
<td>Major regional referral centre</td>
<td>Ambulatory care</td>
<td>Diabetes</td>
<td>Diabetes, rural</td>
<td>Transitional care</td>
</tr>
<tr>
<td>Number of beds</td>
<td>56</td>
<td>42</td>
<td>465</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Number of dietitians allocated FTE* (number of people)</td>
<td>0.8 (1)</td>
<td>1.0 (1)</td>
<td>6.4 (7)</td>
<td>1.0 (1)</td>
<td>2.5(4)</td>
<td>1.2(2)</td>
<td>1.0(1)</td>
</tr>
<tr>
<td>Average length of stay(days)</td>
<td>16.0</td>
<td>33.0</td>
<td>6.5</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Observation time</td>
<td>64 hours</td>
<td>80 hours</td>
<td>132 hours 45 minutes</td>
<td>151 hours 42 minutes</td>
<td>78 hours 54 minutes</td>
<td>61 hours 54 minutes</td>
<td>41 hours</td>
</tr>
<tr>
<td>Ward area/specialties</td>
<td>Aged care</td>
<td>Rehab</td>
<td>Major regional referral hospital</td>
<td>Ambulatory care</td>
<td>Diabetes (north)</td>
<td>Diabetes (south)</td>
<td>District-wide</td>
</tr>
<tr>
<td>Number of base-grade dietitians</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Number of senior clinical dietitians</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Ratio of dietitians to hospital beds</td>
<td>1:70</td>
<td>1:42</td>
<td>1:60</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

*FTE- full time equivalent (38 hours per week).
4.4.4 Data Collection

Data was collected in three separate collection periods spanning a three-year period (July 2008 to December 2010), by 10 volunteer observers. These observers were in their third or fourth year of the Nutrition and Dietetics course at the University of Wollongong, and had responded to an invitation to be involved in an observational study. The volunteers attended a two-hour induction session that provided the background, purpose and scope of the study and their role. They were also shown how to record the activities on a data-collection sheet designed for the study and given examples of the level of information that was required. The volunteers were instructed to record a basic description of the activity undertaken, such as, ‘discussed diet with patient….spoke to nurse about dietary needs .. documented patient care in medical notes…..walked to car’, etc.

They were advised to be as non-invasive as possible and only to engage in discussion if they required clarification about the task they were observing.

4.4.5 Data Analysis

The data was analysed after each of the three collection periods (2008, 2009 and 2010). The initial analysis occurred in September 2008. Three of the volunteer observers were also involved in the data analysis; two analysed the 2008 and 2009 data set and the third analysed the 2010 data.

In the initial stages of analysis the activities were grouped to form 18 categories. These categories were further collapsed into five main categories: direct patient care, indirect patient care, communication, education and administrative tasks. The categories were then used for the subsequent collection periods. Direct patient care included those tasks that involved face-to-face contact with either the patient or the patient’s caregivers. Indirect
patient care included those tasks that assisted or supported the provision of dietetic care, but were not performed in front of the patient or their caregivers. These included phone calls to arrange after-hospital care, research into patient requirements. The communication category covered any form of interaction (verbal or written, informal or formal) between the dietitian and other health-care providers that concerned the patient’s care. This could be an informal discussion with a doctor or nurse at the nurses’ station or a formal case conference about the patient. The administration category included all the tasks that were not clinical in nature where the activity, in itself, could performed by a non-clinician, such as entering statistics, making appointments, travelling and completing tasks required by the workplace such as occupational health and safety activities. The education category was defined as any activity that was not directly linked to a patient but involved education of self or others. This could be reading a journal, attending an education session or preparing a lecture or presentation for others. The details of personal activities such as meal and toilet breaks and social interactions were not recorded within the final five categories and this time was not included in the overall time observed.

4.4.6 Statistical Analysis

The data was analysed using descriptive statistics, with 95% confidence intervals to identify the proportions of time spent on work tasks. Basic non-parametric inferential statistics were used to compare between groups. Due to the small sample size in each group we used a non-parametric test, as we did not assume a normal distribution. A chi-square test was used to determine any differences between the two main work areas (inpatient and outpatient). The Scheffe post-hoc test was used to determine which of the six categories were statistically different between the two work areas. The alpha value was set at 0.05.
4.4.7 Ethics

This study was approved by the Area Health Service and University Human Research Ethics committee number: HE/10 196.

4.5 Results

Table 4.2 summarises the results of this study, showing the average time spent in each of the five major categories for both inpatient and outpatient dietetics.

Table 4.2: Percentage Time Comparison Between Dietitians working in either an Outpatient or Inpatient Setting.

<table>
<thead>
<tr>
<th>Category</th>
<th>Task</th>
<th>Outpatient (n=8)%</th>
<th>Inpatient (n=9)%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Direct Patient Care</strong></td>
<td>Patient progress review</td>
<td>13.0</td>
<td>5.6</td>
</tr>
<tr>
<td></td>
<td>Patient full assessment</td>
<td>13.6</td>
<td>11.5</td>
</tr>
<tr>
<td></td>
<td>Patient diet education</td>
<td>5.5</td>
<td>1.2</td>
</tr>
<tr>
<td></td>
<td>Patient discharge</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal (95% confidence interval)</strong></td>
<td></td>
<td><strong>32.1 (27.8-37.8)</strong></td>
<td><em><em>18.3</em> (14.4-21.7)</em>*</td>
</tr>
<tr>
<td><strong>Indirect Patient Care</strong></td>
<td>Patient file documentation</td>
<td>2.8</td>
<td>19.0</td>
</tr>
<tr>
<td></td>
<td>Patient file review</td>
<td>3.1</td>
<td>12.9</td>
</tr>
<tr>
<td></td>
<td>Organising appointments</td>
<td>3.7</td>
<td>3.8</td>
</tr>
<tr>
<td></td>
<td>Updating IPM/chime/database</td>
<td>6.9</td>
<td>2.4</td>
</tr>
<tr>
<td></td>
<td>Researching diet information/printing</td>
<td>1.4</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>Patient’s family or primary carer</td>
<td>0.3</td>
<td>1.9</td>
</tr>
<tr>
<td></td>
<td>Information management</td>
<td>5.1</td>
<td>1.2</td>
</tr>
<tr>
<td><strong>Sub Total (95% confidence interval)</strong></td>
<td></td>
<td><strong>23.3 (20.6-27.0)</strong></td>
<td><em><em>41.7</em> (32.6-47.6)</em>*</td>
</tr>
<tr>
<td><strong>Communication</strong></td>
<td>Other dietitians</td>
<td>4.7</td>
<td>5.5</td>
</tr>
<tr>
<td></td>
<td>Medical/nursing/allied health/kitchen staff</td>
<td>5.2</td>
<td>10.8</td>
</tr>
<tr>
<td></td>
<td>Dietitian staff meetings</td>
<td>3.8</td>
<td>3.2</td>
</tr>
<tr>
<td></td>
<td>Phone/page</td>
<td>0.6</td>
<td>1.6</td>
</tr>
<tr>
<td><strong>Subtotal (95% confidence interval)</strong></td>
<td></td>
<td><strong>14.4 (11.1-17.9)</strong></td>
<td><em><em>22.7</em> (16.6-26.6)</em>*</td>
</tr>
<tr>
<td><strong>Administration</strong></td>
<td>Emails</td>
<td>6.8 ± 0.6</td>
<td>4.8</td>
</tr>
<tr>
<td></td>
<td>Office duties</td>
<td>2.7 ± 0.5</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>Statistics</td>
<td>1.0 ± 0.3</td>
<td>3.3</td>
</tr>
<tr>
<td></td>
<td>Travel</td>
<td>10.7 ± 1.4</td>
<td>0.5</td>
</tr>
<tr>
<td>Category</td>
<td>Task</td>
<td>Outpatient (n=8)%</td>
<td>Inpatient (n=9) %</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------------------------</td>
<td>-------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td></td>
<td>3.3 ± 0.5</td>
<td>1.7</td>
</tr>
<tr>
<td><strong>Subtotal</strong> (95% confidence interval)</td>
<td></td>
<td><strong>24.5 (20.5-28.1)</strong></td>
<td><strong>13.5 (6.7-18.0)</strong></td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td>Continuing education</td>
<td>4.3 ± 3.2</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td>Providing information to students</td>
<td>1.4 ± 8.8</td>
<td>1.7</td>
</tr>
<tr>
<td><strong>Subtotal</strong> (95% confidence interval)</td>
<td></td>
<td><strong>5.7 (3.2-9.8)</strong></td>
<td><strong>3.8 (2.7-5.4)</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
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</tr>
</tbody>
</table>

Statistical Analysis: ‘*’ denotes a significant difference between the inpatient and outpatient group dietitian groups, at an alpha value >0.05.

As shown in Table 4.2, there were significant differences in the tasks performed by dietitians working in the inpatient and outpatients areas. These differences were in three of the five categories and these were: direct patient care, indirect patient care and communication. Dietitians working in the outpatient setting spent more time face-to-face with patients compared to their inpatient counterparts, which was categorised as ‘direct patient care’ activity. Dietitians working in the inpatient setting spent more time in ‘indirect patient care’ activities particularly, reading and writing in the medical files as compared to the same tasks in the outpatient setting. Inpatient dietitians also spent more time in communication with other staff and answering their pages. There were no differences between the inpatient and outpatient setting in the time spent in administration and education.

### 4.6 Discussion

This study used a precise method for recording time invested in tasks and observed 607 hours of activity (just over 16 weeks full-time). This is a relatively large direct observational study; other studies, using the same methodology, have recorded 150-300 hours of direct observation (Melgar et al., 2000, Zhu et al.; 2008, Westbrook et al., 2008; Hollingsworth et al., 1998). The literature in this area pertaining to dietitians was limited; notably, when
using the same definition for work categories, there was agreement that appeared to transcend international practices and data-collection methodologies. A United Kingdom study published in 1978 reported that hospital dietitians spent 20.3% of their time face to face with patients (Elliot et al., 1978). It was difficult to ascertain the direct time from some of the studies due to the use of different terminology for this study’s descriptor ‘direct patient care’. Despite the different methodologies used, the spread of location, different health systems and the historical aspect of some of these studies, the findings are strikingly similar. The agreement with other research in this area lends support to the generalisability of these findings. It also suggests that the use of a direct observational method, even with a small number of participants, can yield in-depth data that may reflect the larger population of hospital dietitians.

This study was also able to compare the time and range of services provided between the two primary work contexts: inpatient and outpatient. It showed those dietitians working in the outpatient setting spent more time face-to-face with their patients, particularly in the areas of review of the patient and diet education. In contrast the dietitians working in the inpatient setting spent more time in the indirect or support activities such as medical documentation, information gathering, management of supporting information systems (statistics) and accessing patient data. The administration component of the dietitian tasks was higher in outpatient setting, but did not reach a statistical significance. This difference was largely due to the travelling time required. In this study the outpatient service included two ambulatory care positions that travel from two to four hours per day due to the geographical distances within the health district. This finding may be a result of the small sample size and therefore not representative of hospital based outpatient services in general.
These results are consistent with studies examining different health-care professions such as nursing and medicine. A large United States study of 36 hospitals (767 different nurses) found that nurses spent a similar amount of their work day in direct patient care as did the nine inpatient dietitians in this study (19.3% versus 18.3%) (Hendrich et al., 2008). It was not possible to make direct comparisons with other allied health workers in the Australian hospital context, due to the lack of published work in this area. However, the results were compared to a number of studies on Australian doctors. In these studies the doctors spent an average of 15.0 to 24.5% of their day face to face with patients, with the other main tasks being communication and coordination of care (Westbrook et al., 2008; Zhu et al., 2008). These results are consistent with the findings from this study.

It appears that, just as in this study, the exact location of work within the hospital is an important factor that affects time given to patients. A study looking at American nurses in intensive care units found that they spent 33% of their day in direct patient care and 55.7% in indirect care, which included documentation (Tang et al., 2006). This is markedly different to American general medical and surgical nurses, who spent on average 19.3% of their time in ‘direct’ patient care (Hendrich et al., 2008). A study of an outpatient clinic by a general physician found that about 50% of the day was spent face to face with clients (Gottschalk & Flocke, 2005), whereas doctors working in the inpatient setting spent far less time face to face with their patients (Westbrook et al., 2008, Hollingsworth et al., 1998).

4.7 Implications

This research is the first Australian study to show empirically, what constitutes a typical day for a group of hospital-based dietitians. It provides a useful baseline that will assist other researchers examining this work context. It also affords a greater insight into the possible
issues that may affect this group of workers, such as time available to spend with patients or for involvement in continuing education. If the business processes inherent within the workplace demand that dietitians complete a range of tasks that reduce patient-contact time, this becomes an important factor to consider if time with the patient is valued. The literature supports the assertion that dietitians value time with patients (Sullivan et al., 2006); this is a view also held by other allied health professions such as occupational therapy (Moore et al., 2006) and physiotherapy (Gelmon & Williams, 1983). Time taken away from patients by administrative duties is not seen favourably by many professions (Lyons et al., 2003). This study showed that most tasks undertaken by hospital-based dietitians occur away from the patient and are most likely to involve documentation and coordination of nutrition care.

The results showed that tasks undertaken by dietitians in the inpatient setting are mainly concerned with the diagnosis and assessment of patients. The majority of nutrition education and counselling occurs in the outpatient setting. This is consistent with the current role of the inpatient services of a public hospital, as described in Chapter One; hospitals are no longer place of recovery instead providing diagnosis and treatment (Hillman, 1999). This emphasis means those professions working within hospitals focus on and therefore the majority of their tasks concern internal processes that support patient assessment, diagnoses and immediate treatment. These tasks do not always require face-to-face interaction between the dietitian and the patient, many occur away from the patient, such as accessing patient information from other sources and discussing the appropriate care plan for the patient with other relevant personnel. The results of this study show that these activities account for 82.7% of dietitian work in an inpatient setting. This study shows how inpatient dietetic work focuses on the diagnosis, assessment and immediate intervention aspects of dietetic care.
Whereas dietitians working in an outpatient setting spent 69.8% of their day undertaking nutrition assessment, review, education and counselling. They were able to spend more time in the education and counselling aspect of dietetic care, but it should be noted that the assignment of categories was done based on strict criterion developed so student dietitians could assign the categories. This is a limitation of the study as what was assigned as ‘review’ may have included counselling but the student observer may have written the task as ‘asking the patients about what they eat’; hence it was allocated to nutrition assessment. It should also be noted that this result is specific to the type of outpatient services observed in this study. This study included domiciliary dietetic services that require the dietitian to visit the patients either in the patients’ home or in a satellite clinic. This additional travel time accounted for 10.1% of the day and it is reasonable to conclude in an outpatient clinic not requiring travel that dietitian may invest this time into other tasks, such as additional time with their clients. The figure of 69.8% may not be representative of all outpatient dietetic services, as not all require the dietitian to travel to their patients.

This study also illustrated the significant differences in the time investment in different activities between inpatient and outpatient dietetic services. Dietitians working in the outpatient settings spent more time with their patients and provided more dietary counselling and education than their inpatient counterparts. They also spent less time in documentation of patient care. This is a pertinent finding, given that:

- The job-satisfaction literature shows that dietitians want to spend time with their patients and provide the full range of their expertise (Devine et al., 2004; Sullivan et al., 2006).
• Nutrition education and counselling are core components of the nutrition care process (Splett & Myers, 2001), yet rarely undertaken by inpatient-based dietitians in this study.

• There is limited evidence to support the widespread provision of dietetic education in the inpatient setting, but this may be due to the lack of studies undertaken in this area (Swanton, 2009). It has been that noted the hospital environment may be an unrealised opportunity for education (Chu et al., 2008)

• Studies have cited ‘too much paperwork’ as a source of dissatisfaction for allied health professionals (Sullivan et al., 2006; Bailey, 1990) and this study showed that inpatient dietitians spent considerable more time in this activity than their outpatient counterparts.

In summary, this is the first study of its kind using direct observational methodology to record the day-to-day work activities undertaken by a group of NSW public-hospital dietitians. The results provide baseline empirical information as to what tasks dietitians undertake in the work context of a NSW public-hospital. Chapter Five will explore how hospital dietitians, in this work context, feel about their workplace. It uses a structured validated questionnaire to measure the level of burnout experienced by dietitians working within the NSW public-hospital system.
Chapter Five: Burnout Levels Amongst Dietitians Working in the NSW Public-Hospital System

5.1 Introduction

In Chapter Four the different models of dietetic care (inpatient and outpatient) were described using a direct non-participatory ethnographic methodology. This provided detailed information on the specific range and type of tasks undertaken by dietitians and their work environment within the NSW public-hospital system. These findings provided the basis for the next stage of this thesis. Chapter Five is an exploration into how NSW public-hospital dietitians feel about their workplace, which encompasses both the tasks undertaken and the work environment. This chapter investigated this area by conducting a state-wide survey of NSW hospital dietitians using a specific psychometric tool that examines the relationship between an employee and their work setting. This tool the Maslach Inventory Burnout tool for human services (MBI-HSS) measures the phenomenon known as burnout.

The concept of burnout has been examined in the literature for over 35 years, and it is estimated there have been in excess of 6,000 books, chapters, dissertations and journal articles on the subject (Schaufeli et al., 2009). It was first noted by a psychiatrist who described how voluntary employees working in a shelter for drug addicts in New York appeared to have a gradual emotional depletion, loss of motivation and reduced commitment to their work. Around the same time a researcher called Maslach was investigating human-services workers’ reactions to stressful work situations. Maslach and her colleagues found that these workers would describe feelings of emotional exhaustion.

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and a crisis in their competence; they termed these feelings as burnout. For the purpose of this study the following definition of burnout was used: ‘a psychological syndrome in response to chronic interpersonal stressors on the job. The three key dimensions of this response are an overwhelming exhaustion, feelings of cynicism and detachment from the job, and a sense of ineffectiveness and lack of accomplishment’ (Maslach et al., 2001, p. 399.). Maslach and colleagues developed the Maslach Burnout Inventory tool to measure burnout amongst workers dealing directly with clients (Maslach & Jackson, 1981a). This tool is a widely used and validated instrument for measuring burnout. The burnout measure has been historically associated with those professions, such as mental-health workers or social workers, which deal with particularly complex cases (Schaufeli et al., 2009). More recently, it has been seen as applicable to a wider group of healthcare professionals and used to investigate the health of many different health workers such as nurses, doctors and a range of allied health professions (Kanai-Pak et al., 2008; Mandy & Tinley, 2002; Scutter & Goold, 1995; Spooner-Lane & Patton, 2007). As one of the smaller allied health professions, dietitians have not received as much attention as the larger groups. Yet, dietitians working in the public hospital system face similar pressures as other hospital staff, such as the increasing demands of an overburdened health system, more-complex cases and shorter time frames in which to provide treatment (Connolly et al., 2009). Additionally, they must cope with changing environments that may or may not support dietetic processes (Gingras, 2010).

Although the profession of dietetics was developed around the principles of nutritional science, it has been argued to be a combination of art and science (Dietitians Association of Australia, 2012). Researchers in the area agree food is much more than just a ‘means to an end’; rather, there is a complex interplay between food and the individual (Lupton, 1994; Murcott, 1982). The profession has come to recognise this complexity and in response is
slowly changing from the days when it simply dispensed nutritional information (Liquori, 2001) to one that deals with the social, psychological, emotional and environmental aspects of eating (Gingras, 2005). This has been reflected in the profession’s change of focus to include nutrition counselling as an essential skill and an integral component of the nutrition care process (Lu & Dollahite, 2010). This means that those dietitians who choose to work in the hospital environment must learn to deal with a work setting that reduces the time available to spend with patients. Yet, as suggested within the literature, the nature of dietetics is ‘interpersonal, emotionally-laden and further complicated by the emotional meanings that food holds for people when they are struggling with illness and disease’ (Gingras et al., 2010, p. 239). This has significant implications for hospital dietitians as they provide their service in a work environment that many perceive as chronically under-resourced (Doiron et al., 2008).

The selection of burnout as the outcome measure for this study facilitates the investigation into the emotional reactions of dietitians to their workplace. This tool measures three well-accepted psychological constructs that together comprise the phenomenon called burnout: emotional exhaustion, depersonalisation and personal accomplishment. The study also provides an opportunity to compare dietitians to other health-care professionals working in similar environments.

5.2 Aim and Objectives

The aim of this study is to measure the rate of burnout amongst hospital-based dietitians working within NSW public hospitals. The objectives are to:

- Identify the variables that are significantly associated with burnout.
• Compare the results to dietitians in different health settings

• Compare the results to other health-care workers in similar settings.

5.3 Methodology

5.3.1 Experimental Design

This study, one of three studies that constitute a multimethod framework (Morse, 1993), was a state-wide, cross-sectional, structured survey conducted using a voluntary, anonymous and self-administered survey instrument.

5.3.2 Subject Recruitment

All dietitians employed within the NSW public-health sector during the six-week collection period (20-April to 30-May, 2011) were invited to participate. These subjects were contacted via the formal network of senior dietetic managers within the NSW public-health sector. Although the full range of government-funded health services is jointly run by both the federal and state governments, all public hospitals and their associated services are operationally managed by each of the seven state and two territories governments. In the state of New South Wales the department that manages health services is called the Ministry of Health (formerly known as the New South Wales Department of Health). Each of the major allied health professions has a state professional advisory group that includes a senior professional representative from each of the local health districts across New South Wales Health. The group for dietitians is called the Nutrition and Dietetic Advisory Group (NDAG). The groups meet regularly throughout the year and serve as peak consultative bodies for the Ministry of Health. NDAG’s main functions are to develop a strategic
direction for dietetic profession and advise the Ministry of Health on all matters pertaining to dietetics. As at July 2009, the NSW Director of Allied Health reported that there were 427 dietitians employed with the public-health sector. This number was verified by conducting a survey of staffing numbers via each of the NDAG representatives. Although there was close agreement, it should be noted that there would always be a flux in positions. This is due to the financial situation of each local hospital district and any newly funded initiatives. However, this number was used as it was felt it most closely represented the total size of the workforce at the time the survey was conducted.

5.3.3 Instrument

The MBI-HSS tool was used (Chapter Three describes this instrument in detail). This instrument was specifically developed for those professions that manage clients with significant emotional stress and complex situations in the human services such as health. The MBI-HSS is a widely used measure of burnout among healthcare professionals and has been validated across a broad range of professions and work settings (Maslach & Jackson, 1981a), making comparisons relatively straightforward; moreover, it has been previously used to study burnout specifically in dietitians. The tool consists of 22 questions/items that can be self-administered posing a low respondent burden. It contains three sub-scales or domains that together comprise the measure of burnout:

1. Emotional exhaustion (EE) describes the feelings of being over-extended and exhausted by the work (nine items).

2. Depersonalisation (DP) describes the level of uncaring or unfeeling the employee may have towards their clients (five items).
3. Personal accomplishment (PA) describes the employee’s sense of competence and achievement within their work (eight items).

The survey requires the respondent to answer each of the questions by ticking the response that best matches their feelings. It is self-administered and can be completed online or via a paper questionnaire sent to the respondents. Both options were made available to all invited participants. The study was voluntary and anonymous.

The survey requires the respondent to answer each of the items by ticking the response that best matches their feelings. The 22 items are constructed as statements. Each statement requires the respondent to select a frequency that reflects how often the statement applies to their situation. For example item one is ‘I feel depressed at work’. The respondent is asked to select the frequency with which this applies to them from among six choices which are: never, a few times a year or less, once a month, a few times a month, once a week, a few times a week, and every day. (Appendix One contains the instructions and three of the survey’s 22 items; only a sample of items could be included due to copyright restrictions.)

5.3.4 Demographic Data

An additional sheet was attached to the MBI-HSS that required the respondents to record the following information: age, years since graduation, hours worked per week, level/grading of their position, area health service, hospital type, marital status and area of work. The area of work was determined by selecting from a list of options; the respondents were asked to estimate what percentage of their day was spent in each work area/task.
5.3.5 Cross-Sectional Survey, April-May, 2011

At the NDAG meeting in February 2011, the purpose and background to this study were described to representatives. A follow-up email outlining the content of the presentation was sent to all contacts after the meeting to provide written information about the study. The survey was distributed in mid-April 2011 to all contacts from the NDAG. These representatives then offered staff the option to respond via either a paper copy or email. Each manager representative was sent the required number of paper copies for all staff. A stamped, return-addressed envelope was attached to every survey to allow individuals to reply directly by mail. Up to three follow-up emails were sent two weeks after the initial contact, and phone calls were made to the NDAG representatives to encourage dietitians to participate. Participants self-nominated their preferred mode of response. The majority 183 (79%) were returned in the stamped, return-addressed envelopes; the remainder were via email.

A total of 232 surveys were received by the end of the six-week collection period, but seven of these were not used due to failure to complete all items on the survey. Therefore 225 surveys were used in the final analysis.

5.3.6 Statistical Analysis

An independent researcher entered all data. The role of this person was to check that each returned survey had completed all sections of the survey and then to enter the raw data into an Excel spreadsheet. During this process each of the respondents was assigned a unique code. If any respondent circled more than one response per item or failed to complete all the relevant information their survey was excluded during the data-entry process. The author then analysed the results using the de-identified data, (Appendix Two contains a summary of the raw data).
Both descriptive and inferential statistical tests were performed on the data. The descriptive statistics were used to describe the type of participants and compare these results to the available data on the Australian dietetic workforce. Inferential statistics, including multiple linear regression and nonparametric group comparisons tests, were used to investigate which variables were associated with burnout, and to determine if there were statistically significant differences between the groups.

Descriptive statistics were used to summarise the demographic data. Relationships between dimensions of burnout and ratio-level demographic variables were tested using bivariate Pearson correlation analyses and all ordinal-level data were tested using Spearman's rho analyses. Multiple linear regression analysis was used to investigate the extent to which the selected predictor variables were associated with the three subcategories of burnout. Each of the three domains—PA, DP and EE was tested to ensure it met the assumptions of a multiple linear regression: linearity, reliability of measurement, homoscedasticity and normality. Between-group comparisons were made using the Kruskal-Wallis test. The post-hoc tests used to identify differences between group were Fisher’s exact test and the Bonferroni correction factor for multiple comparisons. The internal consistency of the MBI-HSS was assessed using the Chronbach’s alpha statistical test. All statistical tests were performed using PASW Statistics, Student version 18 Chicago Ill.

5.3.7 Ethics Approval

The University of Wollongong South East Sydney Illawarra Ethics Committee approved this study. The number of the application was HE11/O82.
5.4 Results

5.4.1 Summary

a) The response rate was 52.3% based on 225 completed surveys out of a possible 427.

b) Internal validity: Chronbach’s alpha for each sub-category were: 0.7578 (PA), 0.8952 (EE) and 0.7588 (DP), and the data had an overall ‘all-items rating’ of 0.7578. These values lie within the published norms for this tool and are considered good and above-average for a psychometric instrument (Maslach & Jackson, 1981).

5.4.2 Demographic Statistical Summary

Table 5.1: Percentage Comparison between Study Participants Characteristics and the Australian Dietetic Workforce

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Profile of the Australian Dietetic Workforce 2006* %</th>
<th>NSW Burnout Study, April-May, 2011 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
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</tr>
<tr>
<td>Male</td>
<td>9.0</td>
<td>7.4</td>
</tr>
<tr>
<td>Female</td>
<td>91.0</td>
<td>92.6</td>
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<tr>
<td>Age</td>
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<td></td>
</tr>
<tr>
<td>&lt;25</td>
<td>9.5</td>
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</tr>
<tr>
<td>25-35</td>
<td>40</td>
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<td>36-45</td>
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<td>46-55</td>
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<td>56-65</td>
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<td>&gt;65</td>
<td>.9</td>
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<tr>
<td>Marital Status</td>
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<tr>
<td>Characteristic</td>
<td>Profile of the Australian Dietetic Workforce 2006* %</td>
<td>NSW Burnout Study, April-May, 2011 %</td>
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<tr>
<td>----------------------</td>
<td>-----------------------------------------------------</td>
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<tr>
<td>Married/defacto</td>
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<td>72.3</td>
</tr>
<tr>
<td>Single</td>
<td>13.6</td>
<td>24.4</td>
</tr>
<tr>
<td>Other</td>
<td>11.2</td>
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</table>

*Children*

<table>
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<tr>
<td>None</td>
<td>44.8</td>
<td>59.6</td>
</tr>
<tr>
<td>One</td>
<td>14.9</td>
<td>9.7</td>
</tr>
<tr>
<td>Two</td>
<td>28.0</td>
<td>22.8</td>
</tr>
<tr>
<td>Three or more</td>
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*Work Setting*

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<tr>
<td>Outpatient</td>
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<tr>
<td>Management</td>
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</tr>
<tr>
<td>Research/Other</td>
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</table>

*Hours of Work*

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<td>16-25</td>
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<td>26-35</td>
<td>23.9</td>
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<tr>
<td>36-38</td>
<td>61.0</td>
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</table>

*(Brown et al., 2006)*

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Table 5.2: Survey Response Rate of the Different New South Wales Area Health Services##

<table>
<thead>
<tr>
<th>Deidentified Area Health Service</th>
<th>Total Number of Responses</th>
<th>Percentage Response Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>11</td>
<td>71.0</td>
</tr>
</tbody>
</table>

---

85
# The area health services within this table are based on the NSW Health structure prior to January 2011.

## 5.4.3 Burnout Measure Within NSW Hospital Dietitians

Table 5.3: Burnout Measures across the Three Burnout Domains in NSW Public-Hospital Dietitians.

<table>
<thead>
<tr>
<th>Burnout Measure</th>
<th>Emotional Exhaustion</th>
<th>Depersonalisation</th>
<th>Personal Accomplishment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Average (+- SD)</td>
<td>20.18 (10.10)</td>
<td>5.36 (4.68)</td>
<td>36.70 (6.40)</td>
</tr>
<tr>
<td>Categorisation of Mean</td>
<td>Moderate</td>
<td>Low</td>
<td>Moderate</td>
</tr>
<tr>
<td>Proportion of Respondents in the High Category (%)</td>
<td>25.0</td>
<td>9.9</td>
<td>42.2</td>
</tr>
<tr>
<td>Proportion of Respondents in the Moderate Category (%)</td>
<td>38.5</td>
<td>25.5</td>
<td>35.9</td>
</tr>
<tr>
<td>Proportion of Respondents in the Low Category (%)</td>
<td>36.5</td>
<td>64.6</td>
<td>21.9</td>
</tr>
</tbody>
</table>
5.4.4 Correlation Associations

_Bivariate Correlation Calculations_

EE was positively associated with hours of work, with $r = 0.201$ ($p=0.003$), and the level/grading of the dietitian, with $r = 0.192$ ($p=0.004$).

DP was negatively associated with number of children, with $r=-0.147$ ($p=0.02$), and positively associated with the number of hours worked, with $r = 0.154$ ($p=0.021$).

PA was positively associated with number of children, with $r = 0.304$ ($p=0.006$), and negatively associated with the hours of work, with $r = -0.198$ ($p=0.021$).

The potential collinearity between the two variables—part time workers and number of children—was notable as there was a significant association between them, with $r=0.54$ ($p=0.001$). An examination of the data showed that 67% of all children belonged to a part-time worker; moreover only 21% of full-time workers had children, whereas, 81% of part-time workers had children. A separate study would need to be undertaken to disentangle these two factors.

5.4.5 Multiple Linear Regression Analysis

Multiple linear regression analysis was used to measure the usefulness of nine selected variables in predicting the level of burnout: age, gender, primary area of work, level/grade of the position, hospital type, number of children, hours worked, years since graduation and marital status. The utility of the model was examined for each of the three domains (DP, EE and PA).

DP and EE were found to be significantly associated with the seniority/level of the dietitian ($p= 0.01$ and $p=0.008$ respectively). PA had no significant association with the combination
of the nine predictor variables used in this analysis. There was a significant association between DP, EE and level/grade of the dietitian; this factor accounted for 8.1% of the variation in the DP score and 6.3% in the EE score.

The statistical analysis technique assumes the categories are mutually exclusive; although this is the case for level 1 and level 2 dietitians, there is some crossover between specialists and managers, as the assigned levels of 3, 4, 5 and 6 can be either management, clinical specialty positions or a combination of both. To clearly identify the roles of each respondent a further analysis was conducted by grouping the data into four levels: level 1, level 2, specialists and managers. The latter two were assigned after work areas and levels were matched: if respondents worked 50% or more of their time in a clinical area and were also a manager, they were assigned to the specialist clinical role, and if the respondent worked more than 50% of their time on management tasks they were assigned to the managers group.

5.4.6 Comparison Between Assigned Groups

Between-group comparisons were made across using a one-way analysis of variance (Kruskal-Wallis) and post-hoc tests to detect where the differences may exist.

Table 5.4: Comparisons of Burnout Domains Between the Four Levels of Dietitians

<table>
<thead>
<tr>
<th>Level.Domain</th>
<th>Level 1 (n=46)</th>
<th>Level 2 (n=51)</th>
<th>Specialists (n=99)</th>
<th>Managers (n=29)</th>
<th>*P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>EE (+/- SD)</td>
<td>17.02 (8.29)</td>
<td>20.37 (9.39)</td>
<td>19.86 (10.19)</td>
<td>26.48 (10.11)</td>
<td>0.011</td>
</tr>
<tr>
<td>DP (+/- SD)</td>
<td>4.61 (4.04)</td>
<td>6.55 (5.24)</td>
<td>4.02 (4.18)</td>
<td>8.31 (5.22)</td>
<td>0.003</td>
</tr>
<tr>
<td>PA (+/- SD)</td>
<td>38.39 (6.21)</td>
<td>36.29 (6.29)</td>
<td>38.96 (5.20)</td>
<td>34.28 (6.62)</td>
<td>0.029</td>
</tr>
</tbody>
</table>

*Using a one-way Kruskal-Wallis test
Post-hoc tests using a Bonferroni correction factor and an alpha level of 0.05 showed that: level 2 dietitians had higher levels of DP and EE than level 1; the manager group had higher levels of EE and DP than either the level 1 or specialist groups, but PA was not statistically different among the groups.

Table 5.5: Burnout Scores Across the Four Major Work Areas

<table>
<thead>
<tr>
<th>Domain/Work Area</th>
<th>Inpatient (n=134)</th>
<th>Outpatient (n=51)</th>
<th>Mixed (n=23)</th>
<th>Management (n=17)</th>
<th>*P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>EE (+/- SD)</td>
<td>19.9(10.3)</td>
<td>18.6(9.5)</td>
<td>22.6(8.7)</td>
<td>25.5(10.7)</td>
<td>0.039</td>
</tr>
<tr>
<td>DP (+/- SD)</td>
<td>5.5(4.36)</td>
<td>4.1(4.2)</td>
<td>5.0(4.2)</td>
<td>8.4(5.7)</td>
<td>0.017</td>
</tr>
<tr>
<td>PA (+/- SD)</td>
<td>36.5(6.13)</td>
<td>38.5(6.8)</td>
<td>35.3(7.1)</td>
<td>35.2(5.7)</td>
<td>NS</td>
</tr>
</tbody>
</table>

*Kruskal-Wallis one-way analysis of variance

Further testing with post-hoc tests and using a Bonferroni correction factor did not show any differences among the work areas at p value <0.05.

Table 5.6: Burnout Scores Across the Five Major Hospital Types

<table>
<thead>
<tr>
<th>Domain/Work Area</th>
<th>Tertiary Teaching (n=84)</th>
<th>Speciality Centre (n=8)</th>
<th>Major Regional Referral (n=55)</th>
<th>Metropolitan (n=51)</th>
<th>Rural (n=27)</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>EE (+/- SD)</td>
<td>23.68(10.64)</td>
<td>21.00(5.92)</td>
<td>17.49(9.66)</td>
<td>17.49(8.68)</td>
<td>18.74(8.68)</td>
<td>0.004</td>
</tr>
<tr>
<td>DP (+/- SD)</td>
<td>6.65(5.23)</td>
<td>5.71(3.95)</td>
<td>5.15(4.44)</td>
<td>3.98(3.57)</td>
<td>4.07(4.53)</td>
<td>0.014</td>
</tr>
<tr>
<td>PA (+/- SD)</td>
<td>35.82(6.3)</td>
<td>35.00(7.2)</td>
<td>37.71(6.0)</td>
<td>36.75(7.1)</td>
<td>37.70(6.04)</td>
<td>NS</td>
</tr>
</tbody>
</table>

* Kruskal-Wallis one-way analysis of variance
Post-hoc tests revealed a significant difference in levels of DP and EE between tertiary teaching hospitals and metropolitan sites.

Table 5.7: Comparison of Burnout Scores Between NSW Public-Hospital Dietitians and Other Health-Care Professionals

<table>
<thead>
<tr>
<th>Profession</th>
<th>EE</th>
<th>DP</th>
<th>PA</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSW dietitians (Milosavljevic, 2011)</td>
<td>20.18</td>
<td>5.36</td>
<td>36.70</td>
</tr>
<tr>
<td>Dietitians, Canada (Gingras et al., 2010a)</td>
<td>19.96</td>
<td>4.31</td>
<td>38.61</td>
</tr>
<tr>
<td>Nurses, Victorian (Patrick &amp; Lavery, 2007)</td>
<td>21.84</td>
<td>5.81</td>
<td>37.56</td>
</tr>
<tr>
<td>Nurses, Queensland (Spooner-Lane &amp; Patton, 2007)</td>
<td>23.01*</td>
<td>7.75*</td>
<td>34.62*</td>
</tr>
<tr>
<td>Doctors, NSW (Willcock et al., 2004)</td>
<td>17.59</td>
<td>5.99</td>
<td>36.74</td>
</tr>
<tr>
<td>Normative values (Maslach, 1996)</td>
<td>22.19*</td>
<td>7.12*</td>
<td>36.53</td>
</tr>
</tbody>
</table>

* p<0.05 When comparing the NSW Dietitian Burnout Survey to each study.

5.4.7 Other Health-Care Workers' Comparison Results

A student t test (unpaired) was used between groups; this assumed normal distribution within each sub-group. The alpha value was set at 0.05. The results showed:

- A significant difference between normative DP and EE values and the values for NSW dietitians at p<0.05.

- A significant difference between Queensland nurses and NSW dietitians in all three domains at p<0.05.

- No difference between Canadian and Australian dietitians.
- No difference between NSW doctors and NSW dietitians.

5.5 Discussion

The results of this study, as shown in Table 5.7, found that dietitians in the NSW public-hospital system had lower values for burnout than the reported normative values (Maslach, 1996), and similar levels of burnout to the Canadian group of dietitians (Gingras et al., 2010). An examination of Australian doctors and nurses showed that dietitians in this study had lower rates than their nursing counterparts (Patrick & Lavery, 2007; Spooner-Lane & Patton, 2007), but similar levels to NSW doctors (Willcock et al., 2004). A small study on recent physiotherapy graduates (Scutter & Goold, 1995) in South Australia did record higher levels of DP and EE than in our study, but a statistical comparison was not made due to limited information supplied by the study’s authors. These results suggest that as a profession, dietitians do not appear to experience the same levels of emotional stress as nurses, but have similar levels to doctors.

5.5.1 Predictor Variables and Burnout

The results of the multiple regression analyses are consistent with others studies in different health-care workers in that the levels of DP and EE increase with longer hours of work (Sponner-Lane & Patton, 2007; Gingras et al., 2010; Patrick & Lavery, 2007). Therefore, it can be concluded that those staff in the Australian hospital setting who are employed full-time are more likely to experience higher levels of burnout than part-time staff. The other significant associations were that part-time workers had lower levels of EE and DP and higher levels of PA than full-time workers and that the number of children was negatively associated with EE and DP and positively associated with PA. So, the more
children a dietitian has, the less likely it is that they would suffer burnout. However, there was a strong association between part-time work and number of children; thus; these two variables are collinear (Fox, 1991). Further analysis would be required to determine which of these factors has the greater impact on levels of burnout. It was also found that the level or seniority of the dietitian was associated with an increased likelihood of DP and EE.

The bivariate correlation results showed a positive association between the level of dietitians and their DP and EE scores. This finding required careful examination, as the level or grading of a dietitian was not always indicative of their role or function. A further analysis of the data revealed that level 2 dietitians had higher levels of DP and EE than their level 1 counterpart. In contrast, managers had higher levels of DP and EE than either level 1 or the specialists. The PA domain, although different among the four groups, failed to reach statistical significance with post-hoc tests, although the raw data suggests a trend for managers to have higher levels of PA than the other three groups (Table 5.4).

5.5.2 Relevance of Findings

These findings are of interest, as they constitute the first empirical evidence supporting the existence of differences between dietitians’ career phases in terms of burnout. Early entrants into the profession appeared to experience far less burnout than those who were mid-career or in a generalist role; these findings are in contrast to studies that have found that early entrants reported high levels of burnout (Spooner-Lane & Patton, 2007; Spickard et al., 2002; Scutter & Goold, 1995; Peisah et al., 2009). This study found that managers experienced higher-than-average levels of burnout, but paradoxically had higher levels of PA. This may be due in part to the average age of managers in this study being older than 45 years, as it has been reported elsewhere that older dietitians had a greater likelihood of higher levels of PA (Gingras et al., 2010). One Australian study found that older Victorian
nurse practitioners appeared to have developed resilience to the workplace (Patrick & Lavery, 2007). This finding is also consistent when considering that the EE scale is most responsive to the organisational environment and social organisations, whereas PA is not closely related to these structures and can develop in parallel (Maslach, 1996). These findings would suggest that years in the workforce may serve as a protective mechanism. A longitudinal study of Australian doctors showed they experienced a significant increase in both DP and EE over their first 12 months of practice (Willcock et al., 2004). This has also been found in nurses. One study describes an adaptation period called ‘transition shock’ to help explain this phenomenon (Duchscher, 2009). In this study we found differences between level 1 and level 2. The fact that it takes two to three years to progress from level 1 to level 2 suggests that any equivalent transitional shock in dietitians occurs more slowly. However, a longitudinal cohort study on dietitians during their first few years of work may yield different results. There is evidence that the early years are critical across a broad range of professions; for example, research on the teaching profession has found higher levels of burnout for those at the early stage of their career (Goddard, 2003; Sarros & Sarros, 1992).

An interesting finding of this study was that those in the age group 30-40 years had lower levels of burnout than their older and younger counterparts. This finding is not supported within the broader literature, which has shown that employees in this age range exhibit high levels of burnout (Maslach et al., 2001). This may be explained by the fact that within this study population, the majority of workers with children were also part-time and in this age bracket. This is not surprising considering that the dietetic profession is 93% female and that 40% of the workforce is part-time. In this study it was found that part-time workers were less likely to experience burnout.
5.6 Limitations

There are several limitations to this study, including the use of a non-random sampling technique and a 52.3% response rate, as this may not be representative of the entire population. It has been postulated that a voluntary survey may underestimate the actual rate of burnout as only the healthy workers may participate. Those who have been extremely affected may not be working at all, or may have left the dietetic workforce. Also, as a cross-sectional survey is an observational study design, no causation can be drawn from the results. The study was also limited to NSW public-hospital employees, which may affect the generalisibility of the findings.

5.7 Conclusion

This was the first study to measure the level of burnout amongst Australian hospital dietitians. It identified a number of factors associated with burnout in the population studied: namely the career stage of the dietitian, hours of work and the type of hospital in which they worked. In order to keep the scope of the study manageable and for the purpose of this research, the career stage and hospital type were the factors chosen to explore in more depth. The following chapter examines the possible reasons behind the role these two factors may play in a dietitian’s perception of their workplace.
Chapter Six: An In-Depth Exploration into How NSW Public-Hospital Dietitians Feel about Their Workplace Using a Grounded-Theory Analysis

6.1 Introduction

The previous chapter highlighted how dietitians across the NSW public-hospital system felt about their workplace in terms of the level of burnout they experienced. The respondents in this survey showed, overall, relatively low levels of burnout, as measured by the three domains (emotional exhaustion, depersonalisation and personal accomplishment) compared to normative values published for other medical professionals (Maslach, 1996). However, a closer analysis of the data revealed a number of factors associated with higher levels of burnout: the seniority of the dietitian as defined by their classification level and as outlined within their industrial award, and hospital type. Both seniority and hospital type were positively associated with stress, whilst number of hours worked and number of children had a negative association with the level of stress. For the purpose of this study only the level of the dietitian was investigated. The finding that hospital type was a factor was considered when selecting the subjects for this study, but it was not investigated separately.

6.1.1 Background

The following section provides the reader with an overview of the profession of dietetics, the established link between work context and the employee, a description of the hospital as the work context of interest, a summary of the literature into how dietitians feel about
their job, a brief justification for undertaking a study in this area and lastly, the aims of this study.

6.1.2 History and Development of the Dietetic Profession

The dietetic profession developed as a result of the recognised need by the medical profession for specifically trained individuals who had an understanding of the relationship between food and health (Wilder, 1925). In the early part of the 20th century dietetic therapy was regarded as the cornerstone treatment of the modern hospital (Arndt & Bigelow, 2006). Naturally, much has changed since those early days, and along with the growth in nutritional science has been the development of the dietitian as an expert in the field of nutrition. In Australia all dietitians must possess a bachelor’s degree in science with a relevant postgraduate qualification. According to the recognised professional body for dietitians, the Dietitians Association of Australia, ‘Dietitians apply the art and science of human nutrition to help people understand the relationship between food and health and make dietary choices to attain and maintain health, and to prevent and treat illness and disease’ (Dietitians Association of Australia, 2011, website). Historically, dietitians have primarily worked in hospital settings (Meyer et al., 2002), but this has changed over the last 30 years, and they now work across a variety of areas such as private industry, public health and community-based health (Brown et al., 2006). However, a significant proportion of the workforce is still employed within the Australian public-hospital system, and the hospital plays a large role in training nutrition and dietetic students in Australia. Consequently, the public-hospital work setting is still of interest to a large number within the dietetic profession. A number of studies have looked at the area of work and the hospital dietitian primarily overseas (Schiller, 1985; Neale, 1985; Compher & Colaizzo, 1992; Tansiongkun & Ostenso, 1968; Van Heerden, 1976; Dalton et al., 1993; Dishion, 2003), and a handful within the Australian setting (Smart, 1998; Heaney et al., 2004; Hughes et al., 2011; Scott, 1987;
Cody et al., 2011; Scott, 1991; Hughes, 1998). Only two of these Australian studies focussed on hospital dietitians; both were small, qualitative studies of Queensland hospital-based dietitians (Cody et al., 2011; Hughes et al., 2011). Therefore, an investigation into how NSW hospital dietitians view their role will address a major gap in the knowledge in this area. It will also be relevant for the more than 40% of the dietetic workforce who work in the Australian public-hospital system.

6.1.3. Australian Public-Hospital System

Of Australia’s approximately 735 hospitals, 220 are located in New South Wales (Department of Health Australia, 2010). In Australia, public-hospital services are free of charge to all persons eligible for Medicare as a public patient. Hospitals are categorised largely by the type and range of services they provide, number of beds and level of specialisation. For the purpose of this study hospitals were grouped according to the criterion developed in the previous chapter, which uses four categories: rural hospitals; tertiary teaching and specialist hospitals; major regional referral hospitals; and smaller metropolitan or district hospitals. Public hospitals are largely places of diagnosis and acute treatment; and the Australian federal government’s focus is to develop as many health services away from the traditional hospital environment as possible (Department of Health Australia, 2010). The main emphases are reduced length of stay, rapid and accurate diagnoses, treatment and discharge (Hillman, 1999). Changes in hospital roles, and hence in the work environment, have a direct impact on all employees within that institution, including dietitians. In the case of the dietetic profession, most of the hospital-based dietitians work in the public-hospital system (Brown et al., 2006). Therefore, there are a large number of dietitians affected by any change within this work environment. With the changing role of hospitals and the accompanying greater focus on rapid transit through the system, it is timely to investigate how an allied health profession, such as dietetics, is
affected by this system. This research is an investigation into how dietitians in the current NSW public-hospital system feel about their workplace; until now, this area has been largely ignored within the literature.

6.1.4 The Hospital Work Context and the Employee

There has been extensive work done on how the work context, particularly the hospital environment, can affect its employees (Codinhoto et al., 2009; McClure & Hinshaw, 2007; Tourangeau et al., 2009; Hamelin Brabant et al., 2007). One of the most commonly used measures to investigate this relationship has been the psychological construct of job satisfaction (Spector, 2000). Job-satisfaction literature has sought to measure how satisfied or dissatisfied employees are with their work. The term ‘job satisfaction’ emerged at the turn of the 19th century; since this time over 10,000 articles have been written (Spector, 1997), but only a relatively small number have examined dietitians. Most of these studies on dietitians have been US-based and have employed a quantitative methodology. (Table 2.1 in Chapter Two summarises the main studies conducted in this area.) Job satisfaction is one of many ways to investigate how employees view their workplace; others include level of career satisfaction (Randolph, 2005), engagement (James et al., 2011), motivation (Ballmann & Mueller, 2008), empowerment (Chang & Liu, 2008) and burnout (Maslach et al., 2001). In the health-care sector a large amount of work has been done in the area of job satisfaction, particularly within the nursing profession. In the late 80s the term ‘magnetic-hospitals’ was coined to describe the type of work environment that was conducive to a happy and well-functioning nursing workforce (Kramer & Schmalenberg, 1988). This work found that common characteristics of well-functioning hospitals included valuing quality of care; autonomy for nursing practice; informal non-rigid communication; innovation; bringing out the best in individuals; valuing education of staff; respect and caring for
individuals; and striving for excellence (Kramer & Schmalenberg, 2008). The job-satisfaction research on dietitians has been less prolific and narrower in focus.

6.1.5 Job Satisfaction Amongst Dietitians

Job satisfaction amongst dietitians has been described in detail in Chapter Two. Overall, studies have found dietitians to be a relatively satisfied group compared to doctors or nurses, and they appear to suffer far less from burnout. Even this study found comparatively low levels of burnout. Yet there have been hints over the years that suggest that this is a complex and difficult area to investigate. One US study found that dietitians had lower levels of satisfaction compared to other allied health practitioners (Broski & Cook, 1978). However, the majority of studies reported moderate to high levels of satisfaction within the profession (Agriesti-Johnson & Broski; 1982, Calbeck et al., 1979; Rehn et al., 1989). This is despite the many issues they face in terms of lack of resources (Sullivan et al., 2006), under-recognition (Mackenzie, 2008; Tansiongkun & Ostenso, 1968), role ambiguity (Agriesti-Johnson & Miles, 1982), relatively poor remuneration and lack of autonomy (Sauer et al., 2010b).

Why is this so? Do the findings to date reflect more about the character and attributes of a dietitian than about any actual workplace issues? A closer examination of these studies does provide part of the answer. The level of job satisfaction varied according to workplace setting and their particular job specifications. One study that compared clinical or hospital-based dietitians with community-based dietitians found that the hospital dietitians had lower levels of satisfaction than their community counterparts (Dalton et al., 1993). Another study found that clinical dietitians were less satisfied than dietetic managers (Sauer et al., 2010b, Sauer et al., 2010a). A study on mid-career hospital dietitians found that they were more likely to stay and enjoyed higher levels of satisfaction if they could
specialise (Fargen et al., 1982a). Also, more recent work (Gingras et al., 2010) and the current burnout study indicated that although burnout was low compared to medical normative, pockets of staff within the group were experiencing higher levels of burnout. This apparent contradiction or lack of consistent findings suggests that the area of study is complex in nature. The vast majority of studies undertaken on this topic have used a self respondent structured-survey design, with only a handful using a qualitative methodology. Yet it is an area that lends itself to an in-depth exploration into the reasons behind the responses. This section of the thesis will delve more deeply into how a group of NSW hospital dietitians view their work environment. It will attempt to do this by using a methodology that provides the opportunity to investigate in-depth the factors that may contribute to how a dietitian feels about their workplace. The need for more research in this area was highlighted in a recent doctoral thesis that surveyed 966 US dietitians; the author recommended: ‘Future research should build upon those elements that were found to be highly satisfying such as nature of the work, coworkers and supervision’ (Sauer, 2009, p.214). This study attempts to find possible reasons behind how dietitians perceive their workplace and why they view their work in a particular way.

6.1.6 Why Investigate Job Satisfaction or Perceptions of a Workplace?

Extensive work has been undertaken in the area of job satisfaction and how this relates to job performance. A recent review concluded that it is a contentious area, and found no clear evidence that satisfaction and performance were linked. It did note that they were closely related, but that the topic required further investigation (Judge et al., 2001).

What the research does show is that a person who is unhappy with their workplace will look for another job, as intention to leave has been highly correlated to low levels of job satisfaction and high levels of burnout (Duffield et al., 2009; Collins et al., 2000; Ames et al.,
Staff turnover is costly and the allied health workforce is facing a severe shortage over the next 10 to 15 years (Australian Government, 2010), particularly in rural areas (Keane et al., 2010; Chisholm et al., 2011). In addition to the potential loss of skilled employees is the financial burden incurred by any organisation when training new staff. One study has estimated that the cost of staff turnover was in the vicinity of 5% of the annual operating budget (Waldman et al., 2010). The technocratic response to the identified shortage has been a ‘front-end’ approach, or training more people to do the job (Schofield, 2009). This will only provide part of the solution, as the other side of the coin is whether the workplace meets the expectations of these newly qualified employees. It is the identification of factors that may attract and retain skilled staff that will help reduce staff turnover. Nursing is a classic example of how the technocratic solution has failed to solve the workforce issue, as it does not address the organisational dynamics that may lead to staff turnover (Hassmiller & Cozine, 2006; McNeese-Smith & Nazarey, 2001; Estryn-Behar et al., 2007; Stevens, 2002). Consequently, uncovering some of the factors that hinder or help a person in doing their job can help employers develop focussed strategies that address the real issues within the workplace.

### 6.2 The Aim of This Chapter

The aim of this chapter is to provide an in-depth exploration of dietitians’ perceptions of their work environment. In Chapter Five the results of a state-wide burnout survey across NSW public-hospital dietitians found that the hospital type and level or grading of the dietitian were associated with burnout. This chapter uses the findings of Chapter Five to assist in the selection of participants, along with evidence from within the existing literature. This is an exploratory study approach that attempts to investigate how NSW
public-hospital dietitians feel about their workplace. As this study is exploratory in nature and concerned with how individuals perceive their world, it does not assume one universal truth or reality, but accepts the possibility that individuals will view the world through their own lens. Therefore an approach ‘which seeks to uncover thoughts, perceptions, and feelings experienced by the informants’ (Minichiello, 1995, p.10), would be appropriate.

A qualitative approach was selected as the analytical method, as the area under study is relatively unexplored. There is no hypothesis; rather a research question that outlines the area of exploration was formulated: ‘How do NSW hospital-based dietitians feel about their workplace?’

6.3 Method

The research question sought to explore how individuals felt about their workplace. Both qualitative and quantitative methodologies could be used to investigate the area. This was a new area with little work previously published, and it dealt with how people interact with their environment. This type of enquiry requires a methodology that affords the researcher the flexibility to discover new ideas and concepts from the data, particularly in a relatively unexplored area such as Australian dietitians’ perceptions of their workplace. Therefore, it seemed well suited to a qualitative line of enquiry (Swift & Tischler, 2010).

6.3.1 Justification of a Grounded-Theory Approach

This study used a semi-structured interview for the data collection (Draper & Swift, 2011) and a grounded-theory (GT) approach based on Glaser, Corbin and Strauss (Glaser & Strauss, 1967; Strauss & Corbin, 1990) and Bryant & Charmaz (2007) for the data analysis.
Chapter Three contains a detailed description of the justification and theoretical basis of the methodology.

This section will focus on the practical details of the method used. For this study the GT approach was selected to assist in the analysis of the data, based on a number of considerations:

a) the suitability of the question or area under investigation,

b) the skills of the researcher,

c) the degree of access to the group of interest,

d) the resources required to undertake and complete the study,

e) the time constraints of the study design and

f) the intended outcome of the research.

a) Suitability of the Question

This area is both novel and relatively unknown, and one of the main arguments in support of a GT analytical approach is that ‘it is most suited to efforts to understand the process by which actors construct meaning out of intersubjective experience’ (Suddaby, 2006). The question was very simple; the intent was to examine the elements of a work day that would make a dietitian say, ‘Wow that was a good day, I really enjoyed that’, or conversely ‘Geez, what am I doing this for?’ The question concerned how dietitians interacted with their environment; hence GT is a suitable method for the exploration and development of a theory about how dietitians perceive their workplace. To the author’s knowledge there
have only been six Australian studies and one thesis published in this area, none of which have used a GT approach; one concerned student dietitians (Hughes, 2002), another the rural perspective (Heaney et al., 2004), two were on Queensland metropolitan dietitians (Hughes et al., 2011; Cody et al., 2011), two were Australian-wide surveys (Smart, 1998, Scott, 1991) and one was a master’s thesis (Scott, 1987).

b) Skills of the researcher

Dietitians are trained in the quantitative paradigm; the majority of research undertaken in dietetics, as with medicine, uses a quantitative theoretical framework (Swift & Tischler, 2010). This meant that the researcher, as an Australian-trained dietitian, was a relative novice in the use of qualitative methodologies. However, part of the University of Wollongong’s Doctorate of Business Administration degree included an exposure to the principles and practice of the GT technique. The researcher completed a project that explored how senior dietitians felt about their role. The researcher was both surprised and intrigued by the data that was generated from in-depth interviews. The findings were extremely interesting and revealed the additional quality of information that could emerge using this technique. With further reading and the support of an experienced academic supervisor, the researcher gained the necessary theoretical knowledge and confidence to include this method in this study. Also, the systematic process described by Strauss and Corbin (1990) provided clear guidelines as to how this analysis should be undertaken.

c) Access to the group of interest

There was a ready supply of interested participants across NSW. Given the intimate nature of the subject matter, it was felt a series of in-depth interviews would be the most suitable data-collection method. The main impetus behind this decision was the assumption that in a one-to-one interview would be more conducive to eliciting truthful and honest accounts,
as within a focus group there is the potential for cultural expectations to shape the responses, or the dominant voices to dictate the mood (King & Horrocks, 2010, pp.42-78).


d) Resources

Most of the qualitative methods are time-intensive, as they require transcription and coding. Ideally this should occur as the data is being collected, to help the researcher refine the ongoing data-collection process. Given the ready access to participants and research students, this method was within the researcher’s time constraints. The locations were across NSW, and this was taken into consideration when selecting final sites. The total distance travelled by the completion of all data-collection was approximately 1,500 km.


e) The time constraints of the study design

This study was undertaken by a full-time worker who was enrolled as a part-time doctoral student, which meant that the fieldwork was restricted to ‘blocks’ of times. It was felt that all the interviews should be face-to-face. Moreover, these were in-depth interviews that required at least 30 minutes from each participant, which had to be taken out of their normal workday. The researcher’s physical presence at these workplaces would help the researcher in observe the interactions within the department and wider hospital, whilst demonstrating a personal commitment to the process. It should also be noted the physical impression of the department and the hospital as a whole can provide an invaluable insight into the hospital’s workplace culture.

Due to limited resources, the researcher had to complete the interviews in nine blocks. This task also required coordination of nine different work sites and specific times, which meant staff were pre-selected based on their interest and career stage. There were many more volunteers eager to share their story than there were available interview times. As these interviews occurred within the subjects’ work time, it was necessary to adhere to a strict
time schedule and plan ahead. This meant that theoretical sampling would have been problematic, as there were neither time nor resources to interview, analyse, and then decide on the next participant. Therefore, this study used purposive sampling, as it ensured that the appropriate level of staff and hospital types was included.

f) The intended outcome of the research

This aim of this study was to investigate what the different levels of staff in a range of hospitals felt about their workplaces. This line of enquiry required an exploration of peoples’ feelings, beliefs and attitudes. The only study of this type undertaken in dietitians had been a structured survey undertaken as part of an Australia-wide study conducted over 25 years earlier (Scott, 1987). The lack of prior knowledge, as well as the research question itself, could be adequately examined with a qualitative approach such as GT.

6.3.2. Subjects and Setting

Based on the findings from the burnout study, participants were selected from the four major hospital types: tertiary teaching and specialists (these were merged due to small numbers in the specialist group), major regional referral centres, district hospitals and rural settings.

Once the final selection of sites was made, each dietetic manager was contacted and an interview schedule arranged. The dietetic manager ensured that there was a volunteer from each career stage available on that day and was asked to select a cross-section from within the group of volunteers.

Sampling Technique

This study used a purposive sampling technique, in preference to the more traditional theoretical sampling used in previous GT analyses (Glaser, 1967). Chapter Five identified a
number of factors that were associated with the measure of interest (burnout). Hence subjects from different hospital types and different levels were required to ensure the participants had a diverse range of views. Table 6.1 shows the characteristics of the volunteers and the spread across the different hospital types and levels of staff.

Table 6.1: Demographics of Interviewed Participants

<table>
<thead>
<tr>
<th>Hospital Type</th>
<th>New Graduate</th>
<th>Mid-Career</th>
<th>Specialist</th>
<th>Manager</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tertiary Teaching</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Major Regional Referral</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>Metropolitan Hospital</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Rural</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Average Age Range (years)</td>
<td>23</td>
<td>28</td>
<td>37</td>
<td>44</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>21-32</td>
<td>25-33</td>
<td>29-60</td>
<td>32-60</td>
<td>21-60</td>
</tr>
</tbody>
</table>
6.3.3 Interview Process

All 32 interviews were conducted by the author, between 11 June 2011 and 12 July 2011; the interview process required nine separate blocks of interview appointments.

On arrival at the site the researcher met with the dietetic manager, who introduced the researcher to the rest of the team. At this time the manager gave the researcher a tour of the hospital and the department, and there were incidental discussions on the history of the department and any current work issues. At each site an office or room had been booked that was quiet and allowed privacy for the interviews. All interviews were recorded using Recordpad NCH Software ©.

The first few minutes of each interview were spent providing the participant with the background and purpose of the study. None of the participants was familiar with grounded theory, so the basic principles of this method were explained. All eight managers and one specialist selected as interview subjects had been well known to the researcher prior to this study, but the rest of the participants had been previously unknown to the researcher.

The participants signed a consent form, as required by ethics procedures, which was collected prior to the start of the interview. All participants were asked if they had any questions regarding the information sheet about the research that had been supplied to them a few weeks prior to the scheduled interview; an additional copy was provided at the interview session and briefly explained to ensure they were aware of their rights and the purpose of this research.

Planned Number of Interviews

Although the ideal situation would have been to analyse each interview, then proceed with the next interview, this was not possible due to the practical limitations of the researcher
being a part-time doctoral student with only a limited block of time available to conduct the interviews. The final number of interviews was selected based on resources, not on theoretical saturation. However, towards the end of the data collection phase it was evident that many of the themes were recurrent. In that sense the study did reach a point of theoretical saturation.

*Interview Questions*

These were semi-structured interviews; the questions were based on those listed in Table 6.2. The exact wording as outlined in the table was not used in each interview, and the order of the questions changed according to the dynamics of the interview process.

Table 6.2: Interview Questions

<table>
<thead>
<tr>
<th>Question</th>
<th>Inquiry Logic</th>
</tr>
</thead>
<tbody>
<tr>
<td>When did you first decide to become a dietitian and why?</td>
<td>Considers motivations for career choice and explores the possible reasons why they chose dietetics</td>
</tr>
<tr>
<td>What do you find are the positive aspects of being a dietitian?</td>
<td>Identifies personal values and outlines their views about the profession</td>
</tr>
<tr>
<td>What do you see as the negative aspects or challenges involved in your job?</td>
<td>Explores personal values and identifies workplace problems</td>
</tr>
<tr>
<td>How do you know you are effective?</td>
<td>Self-reflection of work quality, effectiveness and work performed</td>
</tr>
<tr>
<td>If you had the opportunity, what would you change to be more effective?</td>
<td>Explores career vision and satisfaction</td>
</tr>
</tbody>
</table>

6.3.4 Ethical Considerations

This study was approved by the University of Wollongong South Eastern Sydney Health and Medical Human Research Ethics Committee; ethics application number: HE11/082.
6.3.5 Data Analysis

The author conducted all the interviews. After the first 28 interviews were completed, they were downloaded to separate MP3 files; these files were divided amongst the three associate researchers who had the task of transcribing these interviews. A few weeks later, the last four interviews were sent to each of the three associate researchers for transcription. By this stage the associate researchers had met twice with the principal researcher. Each time they were provided with a detailed description of the study and their role, and were introduced to the GT approach; this introduction included the discussion and analysis of two examples. Also, a timetable for data analysis was developed covering the following eight weeks. The interview times ranged from 16 to 48 minutes, with the average time being 33 minutes.

6.3.6 Coding Sessions and Core Category

When the first three interviews were transcribed, a copy of each was sent to every member of the research team. The team, including the primary investigator, then met and jointly reviewed the transcript together using an open coding process, as described by Strauss and Corbin (Strauss, 1998). A detailed discussion occurred amongst the research team during the earlier sessions. Once the initial codes were identified, they were then collapsed using an axial coding process into what the research team termed higher codes. The axial coding process involved a discussion amongst the research team as to the relationship between the codes and how these could be further collapsed into higher codes. These higher codes were lifted through a process of abstraction to sub-categories. This approach was repeated for the first six interviews. During this process the primary investigator took additional notes, and these theoretical memos were used to assist the group at each session to review earlier decisions and to note if any variations were made to them. The theoretical memos
contained the arguments and the lines of logic that were discussed and agreed upon by the group when determining higher codes and categories.

After the initial learning curve, establishment of expectations and familiarisation with the process, each of the researchers then independently coded the rest of the transcripts to the point of sub-categories. However, every analysis completed by individual researchers was reviewed by the research team, and the independent findings were discussed and debated using a constant comparative method (Bryant & Charmaz, 2007) before final agreement was reached with regards to the codes and sub-categories. Although this was not always a sequential process, there were a series of steps: a) transcription of each interview verbatim; b) independent initial coding by each researcher, team coding of transcripts, and review of each coding by the team and individual researchers; c) ongoing inclusion of field notes during the interview and analysis process, along with the use of theoretical memos at each analysis session and when data was reviewed; d) constant comparisons with final categories and original transcripts; e) development of five final categories or themes; f) linking of themes to an underpinning core category; g) confirmation of the model with interview data; h) comparisons with the different dietitians, presentation of findings to original subjects for review and refinement of model and to broader groups of allied health professionals in similar work settings; and i) the final relation of the findings to evidence from the published literature.

The advantage of using a team approach in the data-analysis stage was that the data could be scrutinised from four different perspectives. The use of several researchers is a form of triangulation in qualitative methodologies that strengthens the validity of the findings (Patton, 1999).

Core Category
The emergence of a core category occurred after the tenth interview had been analysed. During the entire process, additional notes (theoretical memos) had been taken to describe the steps and decisions reached, with these memos helping to link the 22 sub-categories into the final five categories, and supporting the eventual emergence of a core category. These were recorded in an analysis workbook used by the group at each session. Appendix Two contains details of the sub-categories, categories and core category.

6.3.7 Theoretical Saturation

Figure 6.1: Theoretical Saturation

Figure 6.1 shows the emergence of new categories across the 32 interviews. This graph shows that after the eighth interview was coded no new categories were discovered. Hence theoretical saturation was reached at interview eight.

6.3.8 Validity of the Method

Glaser and Strauss (1967) asserted that, as with any research method, there must be rigour and credibility associated with the process, and GT is no exception. They stated that the way in which the data is collected and analysed is critical in determining the credibility, plausibility and trustworthiness of the findings (Glaser & Strauss, 1967). They then
summarised the four criteria that should be applied to any GT study to evaluate its overall worth: fitness, understanding, generalisability and control. In addition, this study used four independent researchers in the process; this is called an ‘analysts triangulation’ (Patton, 1999). By allowing the data to be interpreted through four different perspectives, this process can theoretically compensate for the blind spots of a single perspective. The purpose of this approach is not to form a consensus but to aid the researcher in discovering a broad range of meanings (Patton, 1999).

Fitness: How well do the findings fit with the original data?

The process followed in this study demanded a constant comparison between and within interviews. There was a continual flow between identification of codes and the development of sub-categories, final categories and the core category. This process was carried out for all 32 interviews. At the final stages of the process the results were compared to the original interview recordings. This reflexive process was performed as a measure to check that the primary data did indeed reflect and support the final conclusions, and that the conclusions made sense to the researcher. At this point we reviewed the literature within the dietetic profession and found there were many similarities between our findings and the available published data; there were also differences, which were recorded and discussed.

Understanding: Do the findings make sense to the group that was studied?

The findings of the study, as outlined within Chapter Six, were presented to 16 out of the 32 participants; overall, they responded positively and commented that the findings resonated with their perception and understanding of the research question. There were two from the managers career stage who noted that the findings did not reflect what they saw as their hierarchy of values; and these comments were incorporated in the final
analysis. The results were also presented to a wider audience of 59 dietitians from 11 work sites. The results promoted intense discussion, and the many observers recounted their own stories that resonated with the study. A detail of the discussion has been included in Appendix Three. **Generalisability:** Are the findings broad and meaningful to other professions?

To assess the findings’ generalisability they were presented to a number of allied health professionals within the NSW public-hospital system. This included occupational therapists (9), physiotherapists (30), speech pathologists (19), social workers (14) and allied health managers (9). All groups, particularly speech pathologists and physiotherapists, found areas of commonality, and individuals shared their experiences with the presenter both during and after the presentations. Occupational therapists were the one group that could not clearly see the distinctions between the career stages. A number of the occupational therapists explained that they felt their professional training was far broader than the others’ and hence their possible work locations were much more diverse. The researcher noted all comments (Appendix Three). The most common areas were the medical-dominance issue for the newer entrants to the workforce and the daily frustration of working within a system that often did not understand fully their role and potential.

**Control:** Can anyone applying the theory/model understand all the variables that affect the theory?

In this study a systematic process was followed when developing the categories and final core category. All established links were mapped using theoretical memos and discussion notes. This allowed the researcher to demonstrate the link between the steps that were followed. It also meant there was a log of all variables and conditions identified during the analysis that affected the final category. For example, the workplace culture was described in many different ways (within the individual’s own department, at the ward level or
between groups of colleagues); these were linked to the category of culture and leadership. A clearly articulated theory lets the researcher account or control for the possible variations. Another example was the perspective of the participant with regard to the value sources. For new graduates, difference was noted between someone who was a mature entry into the profession or an early selector. An example was in their interpretation or awareness of the medical dominance within the workplace. An early selector was unlikely to even note its occurrence, whereas the mature-entry new graduate was fully aware of its existence but their outlook enabled them to put it into perspective. The mature-entry new graduate demonstrated a greater level of confidence when dealing with others in the workplace, so when conflict arose they could effectively deal with it without a strong emotional response.

In addition to the four major criteria discussed, the process was reviewed in light of the 13 criteria/questions that should be asked of any GT research process (Corbin & Strauss, 2008). These questions can be summarised as follows:

1. How was the sample selected?

2. What were the major categories found?

3. What description of events or incidents pointed to these categories?

4. How did theoretical sampling proceed?

5. What statements of relationships were made and on what grounds were they formulated and validated?

6. How were negative cases explained?

7. How and why was the core category selected?
8. Were the concepts systematically related?

9. Is variation built into the theory?

10. Are the conditions and consequences that were built into the study explained?

11. Has the process been taken into account?

12. Do the theoretical findings seem significant?

13. To what extent do the findings become part of the discussions and idea exchange among relevant social and professional groups?
6.4 Results

The data analysis produced on average over 100 initial codes per interview; and these codes were collapsed to 22 sub-categories, which were further abstracted to five main categories, and again to yield one core category. This core category was used as the basis for a theoretical model to explain the way hospital dietitians feel about their workplace: they viewed their role within the workplace as one in which they sought validation through five areas: their personal attributes, acquisition of knowledge, role clarity, relationships and culture.

6.4.1 Development of the Five Sources of Value

The combined findings across the four career stages are summarised as ‘the five sources of value’.

The results were examined to determine if the relative importance of each value source differed among the four career stages (Corbin & Strauss, 2008). This was assessed using a constant comparative approach. Once the five sources of value were identified and all interviews had been analysed, each interview was reviewed to assess the relative importance of each value source for the participants. These findings were then pooled to determine if there was a difference between the career stages. It was found that although each value source was present, the emphasis or importance of each source was as follows: the level 1 dietitians were most concerned the acquisition of knowledge and affected by the immediate departmental culture; the level 2 dietitians were concerned with role clarity and the wider hospital culture; the specialist dietitians found their values within their role clarity and relationships; the managers displayed a strong focus on personal attributes and relationships.
6.4.3 Analysis of the Five Sources of Value

The following section reviews each of the value sources as they were seen by the four career stages.

6.4.3.1 Personal Attributes

This category is related to the characteristics of the dietitians in this study. Although there is still controversy in how to accurately measure and define the concept of personality, there is general agreement that personality can have an impact on job performance (Hurtz & Donovan, 2000). In this study those initial codes and sub-categories that illustrated a motivation or preferences for certain activities or that revealed fundamental aspects of respondents’ personality were included in this category.

There were common attributes that emerged in the data from the 32 interviews. All interviewees discussed an interest in food and/or nutrition, a career that was in the health area and helping people. Although a few were unsure of the career initially and ‘fell’ into dietetics, they still mentioned a broad interest in health and dealing directly with people, not test tubes. They all demonstrated a preference for structure and process that was clearly evident throughout every interview. It showed that most dietitians were high achievers who wanted to meet expectations and feel a great sense of accomplishment when they completed their tasks. Often the training was discussed using terms such as ‘highly competitive’ and ‘difficult to achieve entry’. They were excited by new tasks and challenges and found the diversity of clinical dietetics as something that kept them interested. As a group they were very task-focussed, even though they still described strong emotional connection or identification with patients. The following section examines these attributes from the perspective of the four different levels of staff: new graduates, mid-career, specialists and managers.
• New Graduates

New graduates were very excited by the workplace environment. Their level of enthusiasm and energy for their chosen field was evident in the use of positive and often heavily emotionally charged language. They focussed on the processes, making sure they had all their boxes ticked, even to the extent that if a patient stopped one of the boxes being ticked it was a source of real frustration for them:

‘...and no matter how hard we try, we provide, we calculate what the requirements are, we provide them with all these different supplements and foods and try to make it so it’s appealing... Sometimes I feel like I just want to sort of shove their mouth full of food because they are being frustrating and they won’t eat.’ D2

They also exhibited a level of optimism, or what some could call faith in their profession:

‘...enjoying being here so much and loving what I’m doing...’ D18

‘I’m not always going to see their results but they still might be there.’ D2

‘At that time it was really new for me... I suppose this is, this is what I love about my job here just, I love learning new things every day, like I really feel for me, job satisfaction comes from what I’ve learnt today’. D11

‘Seeing more patients... at the end of the day we’ve got to do stats and some days I you know think— ‘oh where did all my time go?! And I just get really sort of frustrated but, um, so it’s measurable by how many patients you see ...’ D11

• Mid-Career
Those in this career stage were, like the new graduates, still focussed on tasks and the completion of a process. However, they differed from the new graduates in their voicing of the hurdles they faced in trying to do their job.

‘I feel like we’re always justifying ourselves, um, to the team as well as to the patient... it seems quite impersonal—we’re imposed on people rather than them wanting us.’ D22

Their additional work experience appeared to give them a voice to externalise their concerns of how they felt the profession as a whole was treated:

‘We are not just a Sustagen waitress.’ D3

Comments like this indicated that in this group in particular, the strong belief in the value of nutrition, which was held by all groups, was becoming a source of tension. This group had begun to recognise a misalignment between what they thought they could contribute and how others were viewing them.

‘The patients don’t actually value, like, the knowledge you have.’ D26

‘...I love the—I guess – watching a patient start out...and what I find really rewarding is getting them out at the other end, or, you know, when a patient says, ‘You’ve, you’ve helped me so much’, and it can be the most basic thing.’ D15

‘I’m the type of person who likes to do things right.’ D17

‘I’m just getting through the work load really efficiently...I’ve got a specific way of doing things and planning my day and I just tick off everything.’ D28

• Specialists
The attributes described for new graduate and mid-career resonated with the specialist group as well. There was an emphasis on the emotional connections they developed with their patients and other members of the health-care team.

‘We are a caring profession who want to help... It’s still all about health and helping patients out.’ D5

It was also important to them that all the processes had been followed and expectations had been met.

‘I’ve completed the processes or met the protocols and things that we have in place.’ D12

- Dietitian Managers

Managers shared attributes with other groups; notably their interest in food and nutrition and their preference for dealing with people rather than ‘test tubes’. In this career stage, the ‘people aspect’ of their work was a strong factor in their motivation for being in the profession. However, their attributes also indicated a very well-defined sense of their advocacy role, particularly in the mature managers (those over 45 years of age). They enjoyed this role and being able to influence how dietetics developed. This group had a very well-developed sense of self-belief and found the challenge of new projects or issues exciting, even after extensive time in the workforce. They used inspirational language and showed an inner strength of character, as they often met significant opposition in their day-to-day activities. Yet they felt there was a bigger purpose, and that their role was to lead and stand up for the profession, to lead by example. Amongst this group of nine managers there were two relatively inexperienced managers (one year’s and five years’ experience respectively); however, both had over 10 years’ experience as a clinical dietitian. They still possessed the main characteristics identified within the older members of this group but, interestingly, their perspective on the management/leadership role was more focussed in
their enjoyment in looking after their staff; this was more akin to a custodial view of management. Their understanding and appreciation of management centred more on their immediate department, where the more mature managers espoused broader professional goals and vision. This is not unexpected, since as with any position, it takes a number of years to establish skills and corporate knowledge before embarking on wider professional issues. There was a resounding optimism present amongst this group, despite the many (at times difficult) battles they faced.

‘I do like to look after people and try to support staff.’ D19

‘…seeing staff develop skills…’ D27

In contrast, their older management counterparts placed more emphasis on outcomes that were not necessarily person-focussed.

‘…nutrition embedded into core principles within health…’ D9

They also showed a strong need to follow the processes and tick all the boxes:

‘…making sure that I do everything and, you know, have I done everything right, and trying to prevent other people going through that as well…’ D27

They often stepped into the role because of a gap and being in the right place at the right time. None of the nine interviewed had systematically planned their career to take them into a management role. All nine reported that they found that through timing and situation the opportunity simply came their way. Yet a common characteristic of all nine managers was the self-confidence in their own capabilities and their underpinning philosophical belief that nutrition adds value to the system, and that it is worth fighting for this principle.
They just decided, ‘Why not give it a go?’ and often felt a responsibility to assume the role. Most had been in a deputy position, and it was a natural progression to the ‘in charge’ role if the manager retired or moved.

‘So when, I guess, when that position came up and I was already in it, it was, like, well, okay, why not.’ D6

‘…um I thought I’d be a good manager of that department (yeah) after seeing some experiences …. where I thought I could do something that functions, I’d probably do a better job.’” D14

‘…so I didn’t really have much of a choice at that point…’ D27

‘I have a voice that needs to be heard.’ D32

‘I never – I didn’t think that I was ever going to be a manager.’ D27

What they also showed was resilience and a commitment to their role as manager:

‘In this job you get kicked in the guts (yeah) so you just have to ride [sic] above that’ D14

‘Somebody’s got to do the job.’ D13

6.4.3.2 Culture

Organisational culture is described as a set of ‘basic assumptions and beliefs that are shared by members of an organization, that operate unconsciously, and that define in a basic ‘take-for-granted’ fashion an organization’s view of itself and its environment’ (Schein, 1985,p.6.). These underlying values have an influence on the behaviour of organisational members, as people rely on these values to guide their decisions and behaviours. It has also been described as conceptually the ‘normative glue, preserving and strengthening the
group, adhering its component parts, and maintaining its equilibrium’ (Sleutel, 2000,p.55.).

Within our study this category described the participants’ feelings about their workplace culture. A dietitian works across a variety of workplaces within one institution; each one will posses its own microcosm of culture. Therefore, the comments across the four-career levels reflect what appear to be anomalies and contradictions, but each comment relates to a particular work situation within the broader context of a hospital environment. From these interviews it appeared that the hospital structure was full of rules, regulations and protocols and there appeared a well-defined hierarchical structure outside the immediate professional department. The interpretations and impact of the varying cultures differed across the four career stages.

- New Graduates

New graduates were concerned with the cultural aspects that included level of support, leadership or mentoring that they could access within their immediate department. They also mentioned familiarity with the rules and traditions, as this provided them with a sense of comfort and reassurance. Uncertainty or absence of knowledge caused stress for this group; the state of ‘not knowing’ meant they had no clear target to reach.

‘So I think the things that I find most difficult in my job is just not, if I don’t know a process or if I don’t know who to go to... I don’t feel like I was given any of that information.’ D25

‘I was offered a position as result of my placement ...I had a very good, very good relationship with...both my supervisors and I met everyone else here in the department.’ D7

‘I applied at this hospital, um, because I’d done a placement here. I knew the staff, I knew it was a good hospital, a teaching hospital.’ D21
• Mid-Career

Those dietitians in mid-career, not yet regarded as ‘specialists’ in a discipline sense but well versed in the practice of dietetics, found themselves in an unenviable situation. For this group, the cultural aspects of the workplace played a very important role in how they felt about their job and their profession. Those interviewed expressed a high level of dissatisfaction with the culture, mostly the pervasive hierarchical structure present within hospital wards. This group acutely felt the lack of professional autonomy within the larger hospital structure.

‘Battling what doctors say is something so, if the doctor says something, that’s obviously comes a lot higher than what, what our priority is.’ D22

‘It’s that hierarchical kind of structure as well (yeah) where um you know with the doctors you’ve really got to prove yourself, (yeah), on every level, (yeah) to every doctor, (yeah) for them to actually consider your opinion (yeah) and take it on board.’ D15

‘...hate having to ask the medical team to implement a lot of the strategies that we have in place...’ D24

Many expressed the necessity of defending a position or opinion, and of proving themselves worthy of being part of the health-care team. This required constant vigilance on the part of the dietitian.

‘...initially it was like banging your head against a brick wall because it was their way and, and they all influence each other so if you try to, if you get ahead with one of them then the others will come around and say you can’t possibly do that...’ D15
It was a common finding that despite their training, experience and expertise, they often found themselves being ignored or even dismissed, often without due consideration or a basis in fact.

- Specialists

This group, although they described the restraints of a hierarchical system based on the doctor being the ‘all-knowing’, appeared to have developed skills to navigate through the system, with varying levels of success:

‘Just set cultures—things are, have to happen a certain way, and if you have a particular idea that you’d like to change or you know think might work better, in order for you to change, there are so many steps you have to go through so people you have to talk to. And often you can put a lot of effort and a lot of work in and nothing really change its almost decided that no that’s just not going to happen. So that’s frustrating.’ D16

‘Allied health in general is pretty down trot [sic] with it, but I think within allied health we are also further down the pecking order.’ D5

It appeared that being in a specialist position afforded them an opportunity to forge highly effective working relationships with their medical teams, which gave them an ‘in’. As a result, the team sought and valued their opinions.

‘I like being that specialist if you like and being that consultant for the doctors where, a-and building that level of trust with them over the years so they’ll tend to listen to you and listen to your ideas and suggestion.’ D12

However, they still voiced the frustration of a working within a culture that did not fully acknowledge their expertise and role.
‘It’s frustrating because I think it’s disrespectful in one way is that we are meant to be the experts in nutrition, um, and we’ve studied for a long time and it’s our area of expertise. I appreciate that these patients are under their care, and yes, they’re very experienced surgeons who have seen their own experiences with their patients over a number of years, but most of the time, I mean they are banging on about us having to provide the evidence for the things we do. But they have no evidence for theirs apart from, ‘oh I saw a patient once, that this happened, so you gotta put people on a pureed diet for eight weeks.’ D4

They also noted that the culture changed from within the department to outside and this was a source of frustration.

‘Biggest frustration I have with my job is within the department I feel very valued, I feel like I make I have good contributions and you know I’m someone that a lot of people come to and talk about things and whatever. And as soon as I step out of our office doors I feel totally different.’ D20

• Managers

The managers thoroughly knew and understood the culture of the organisation seeing it as another obstacle or area that they must work within. It could be a source of conflict or support. The culture they discussed was not the immediate patient/staff/ward culture but that of management and the decision-makers.

‘we are not recognised properly by management as running a service!’ D 6

‘…real culture of this organization of support of friendliness and openness’ D 13

They also noted the incongruence between the culture and their individual belief systems:
'I don’t agree with it, — it is about inpatient and the commonwealth government is very clear.’ D1

But there is maturity in their acceptance of these differences:

‘You have to work with the system.’ D1

‘I can’t and you know, at the end of the day, that was a decision government made, I think it was the wrong decision.’ D9

6.4.3.3 Relationships

This category included those interactions or events that demonstrated the importance placed on the elements of a relationship. This could be the interaction between patient, peers, managers or health workers such as nurses, doctors and other allied health. Relationships were central to all career stages but particularly of note for the specialists and the mid-career dietitians.

- New Graduates

The new graduates often spoke of the positive aspects of providing direct patient care and how good it felt to help someone.

‘I just feel like anything you can do to improve someone’s quality of life is, um, (interviewer: is positive), yeah a-and I think I get that through gratitude in them.’ D18

They also noted that it was very important to them to develop a real connection, and not just go through the motions, as they were seeking that involvement.

‘I have time to develop that therapeutic relationship, rather than just tick the boxes.’ D21

- Mid-Career
The interaction between the patient and the dietitian was also highly valued by mid-career dietitians, so when this was absent it led to them questioning their value or contribution to the system.

‘I love coming to work, I love seeing the people I worked with for a long time and we have great relationships...I’m so glad I could do that...someone coming up and telling you that something you said to them was great you know it really makes you think that that’s why I do this.’ D31

Although highly valued by the clinician, relationships could be either a source of frustration or one of great fulfilment—the classic ‘double-edged sword’.

‘The patients don’t actually value, like, the knowledge you have.’ D26

- Specialists

This category was very important for specialists, as the relationships they formed provided them with a significant source of value, and hence self-worth. They frequently spoke of their recognised status within their teams, although always with the qualifier of this status being gained through a significant effort on their part.

‘...earn your stripes (yeah) in some ways and I always think you have to do the hard yards to be in there and prove, prove what you’ve got to offer.’ D12

The specialists also spoke of the patient-therapist relationship.

‘I like talking to people one on one making an individual difference to people’s lives.’ D10

‘Talking to the people and being able to help them, get through that course, it was—it was horrendous for them but it was also rewarding in that they open to like any anything you could do for them they were willing to listen.’ D8
They also spoke of the rewards of being part of a highly functioning team:

‘Your team really knows who you are and you can make really good um networks and connections with the.’ D5

‘When we work together as a team that’s what I like, we come together as a cohesive team and we can achieve something.’ D4

- Managers

Most of managers’ interactions were between their peers within their immediate environment, people with whom they had collegial relationships outside the department, their immediate staff, their direct managers, the ‘money-men’ (key financial decision-makers) key personnel both in and out of the hospital system with whom they had collaborative working relationships. For the purpose of this study, if a manager still maintained a clinical role we requested they answer the questions as a manager and then gave them the opportunity to answer the same questions as a clinician. However, for this study we only included their answers given in their capacity as a manager. Their answers as a clinician still provided useful data about the person and what aspects of dietetics they found still engaged them.

‘We worked together really well.’ D14

They often viewed the staff-manager relationship in terms of a ‘mother’ or mentor and identified with the helping or caring aspect of their role.

‘You feel responsible for staff.’ D 1
‘…also seeing staff go from here onto different things, high level things, or achieve like—basically seeing staff achieve (yep) what they want to achieve (mmhmm) and being involved in that process.’ D27

‘I do like to look after people and try to support staff.’ D19

‘I know I sound like a mum but…’ D9

‘Helping people I think.’ D32

6.4.3.4 Acquisition of Knowledge

All career stages described aspects of their work that required learning as a very positive aspect of their jobs. They described the exposure to new areas as exciting and stimulating. Often it was this diversity that made the workplace enjoyable, as it was a constant challenge to keep up to date.

- New Graduates

In particular new graduates flourished in an environment that exposed them to new areas, as long as it was a supportive and positive environment. They spoke of their passion for learning and the acquisition of knowledge as being a critical part of their role. This was a major value category for them, and every new graduate spoke of the excitement and challenge of consolidating their knowledge and practical skills.

‘I liked the fast-paced environment of a hospital compared to some clinical placements that I thought maybe was a little bit more...isolating and slower.’ D7

‘At that time it was really new for me... I suppose this is, this is what I love about my job here just I love learning new things everyday, like, I really feel for me, job satisfaction comes from what I’ve learnt today.’ D11
• Mid-Career

This need for knowledge and learning was expressed differently across the four career stages. Within the mid-career it was identified as a need for diversity rather than learning about their new environment.

‘I find it interesting so it keeps me stimulated because it’s different everyday... I like walking around the hospital and seeing different people every day and keeping my mind working by looking up different weird and wonderful diseases and what nutrition implications there are for those.’ D28

It also showed that the learning curve kept them from getting into a rut and they considered this to be good as their skills continued to build.

‘...gives you more room to grow, um, so you’re not stuck in the one thing you can change different clinical areas you can improve your, um, skills as a dietitian.’ D15

• Specialists

Specialists had built a base of clinical knowledge within their area, and this acquisition of knowledge now afforded them a status both within their team and amongst their peers.

‘I think for any areas you need a relationship to build up ... you need to be reasonable in discussing case with them and because my experience working with the ICU consultant is like it’s really like train they train like medical staff like keep on asking question and why do you do that what happened and like you need to have those evidence. I think as I have more like experience like I think I start to learn how to work with the specialist.’ D26

They still spoke of the excitement and challenges of learning new skills, but that this was often in the research area of their speciality. This was more of an extension of their skill
base rather than the learning of new, unrelated areas/knowledge. They were now building on their existing knowledge with further skills and insight into their area.

‘...because they acknowledge your specialty now.’ D16

- Managers

Managers also valued knowledge, but mainly in the context of the acquisition of corporate knowledge. This type of awareness gave them the ability to manage a situation more proficiently. This could span a diverse range of areas, from navigating a payroll system to dealing with a complex performance-management issue. They viewed this knowledge acquisition as providing a source of value because it ultimately helped them in achieve their goals.

‘I've feel that I have learnt a lot from this.’ D27

‘...learning pathways always gets[sic] very steep.’ D13

‘I've got to know a bit of everything and I find that really you know a great challenge.’ D23

6.4.3.5 Value Five: Role Clarity

Most of the dietitians interviewed raised concerns with the level of misconceptions and ignorance about the capabilities and role of a dietitian. These concerns were raised throughout the interviews, but more so within the clinical positions (new graduate, mid-career and specialist). It was less of an issue for the manager group, who spoke about role recognition from a professional sense. In the context of their management role, they expressed their superiors’ lack of recognition of the full potential of dietetics to improve patient health, not of any lack of recognition of their role as a manager.

- New Graduates
The new graduates could see within their immediate circle of interaction that often their role was not understood:

‘Doctors don’t fully understand what the role of a dietitian is, they just see it as something to do with food, it’s just like...’oh yeah, they’re a dietitian’. ‘D7

Although they could see the issue, they were very accepting of the culture in determining the eventual treatment course, even if they did not believe it was the appropriate course of action:

‘I was just asked, Optifast diet, as a dietitian, prescribe as a – please fill out this script almost, um, and so I, I wrote in there why I didn’t think it was suitable and um caused a little bit of a fracas, I wasn’t aware at that stage that, um, the dietitian couldn’t kind of stand up to the consultant...’ ‘D21

- Mid-Career

Those in the mid-career group found lack of role recognition to be a thorn in their side. It represented to them the reality that their expertise was not well understood, and as a result often misapplied or under-recognised even, if there was respect for them as individuals:

‘...I think we do have a good respect by the teams... Sometimes I do feel like they don’t fully understand the role of what the dietitian does...especially the young doctors don’t seem to understand what the role of nutrition...’ ‘D 17

This lack of understanding by the rest of the team often left them feeling like they had to continually ‘justify’ their involvement or advice in the patents’ management plan.
‘I feel like we’re always justifying ourselves um to the team as well as to the patient... it’s seems quite impersonal—we’re imposed on people rather than them wanting us.’ D22

Some dietitians characterised this lack of understanding as a way of undermining the profession:

‘You just feel like, yeah, you’re just a glorified waitress.’ D26

It was apparent in this group that the constant battle within the culture to be recognised as an expert in nutrition was both exhausting and often futile.

• Specialists

Despite the fact that most specialists were well recognised and accepted within their team, and spoke of that status as one that they valued highly, they were still aware of the misconceptions surrounding their profession:

‘I heard on the radio once somebody phoned into one of those call backs and, um, they were talking about what's the most useless job, like when have you seen the most useless job. Somebody phoned in and said: ‘You’ll never believe what happened to me, when I was in hospital. Somebody came around and asked me how much of my breakfast did I eat, and you know, ahh that’s hilarious! I was, like, oh no that’s probably exactly what, you know, came with a clipboard and everything! And a badge and all they wanted to know is how much breakfast did I have!’ And that that’s I suppose just routine part of the job rather than the role and it’s just a misinterpretation.’ D10

Even when they were a well-recognised and valued member of a team, their role could still be misunderstood or ‘dumbed’ down by others.
‘They sort of make that assumption that you are just going to come up, say hi to the patient and start dispensing Sustagen or something like that, and I think that that is a quite a well-held belief ... they don’t understand what we do as a dietitian.’ D5

- Managers

Role clarity was less of an issue for managers. They spoke of the lack of appreciation of others for the dietitians’ expertise and they recognised that this existed across the hospital areas. They saw it as a challenge and another opportunity to advocate on behalf of their staff and their profession:

‘You’re only your own, your own, you monitor yourself.’ D14

‘I would like to have a decision of what realistic services I need to provide.’ D23

‘We have to overcome the culture... they think that dietitians don’t count ...they don’t grow us when they grow the surgeons and the nursing staff.’ D6

They saw this as another challenge the profession must face to remain relevant in the 21st-century hospital.

6.5 Discussion

A core category was developed from the findings of this study that describes how NSW public-hospital dietitians view their workplace. This core category incorporated the five sources of values discussed above: personal attributes; culture; acquisition of knowledge; relationships; and role clarity.
The model also showed how these five sources of value change in their relative level of importance among the four career stages examined in this study. The findings provide a range of explanations for the results of the survey on burnout in NSW hospital dietitians (Chapter Five). The GT analysis had identified five sources of value; it became evident that the presence or absence of these sources of value affected how the dietitians felt about their role within the work setting. The results found that the mid-career dietitians experienced significant issues dealing with their lack of role clarity and the hospital culture, and that this led to levels of frustration with their role, whereas new graduates were more focussed on learning new skills and knowledge that they could readily access in their work environments. Specialists appeared accepting of their role, as they had forged strong relationships with their teams and found a place within the hospital hierarchy. Such a position was not proffered to the mid-career dietitians, who, as generalists, were often not viewed as highly by other team members. The managers' interviews revealed a large reliance on their own internal self-worth; in other words, their value was intrinsically sourced. There was a notable lack of external recognition for this group, which in part explains their high levels of burnout in comparison to the other groups.

The results suggest that if dietitians experience a perception of being under-appreciated, even when they have a strong internal belief system, this mismatch is a source of tension, and ultimately affects their view of the workplace. Mid-career dietitians and managers had the most mismatches between what they believed was valuable about their work and how others perceived their value. This contributes to an understanding of why some groups—particularly the managers and the mid-career dietitians—had higher levels of burnout than others. The following section reviews this study’s findings in the light of the available literature.
6.5.1 Attributes of a Typical Dietitian

Our study found that the 32 dietitians, overall, enjoyed structure and processes, were high achievers, strove to meet expectations and often experienced a competitive process to undertake and complete training and gain initial employment. It also found that there was a strong focus on tasks as opposed to outcomes. Within the Australian context there has been no published work in this area, but there are a number of reviews of the Australian dietetic workforce that have summarised the demographic characteristics of the workforce (Meyer et al., 2002; Heaney et al., 2004; Hughes, 2004; Scott, 1987). The last published profile found that a typical dietitian was young, female and working full-time (Brown et al., 2006); earlier work described the typical dietitian in very similar terms as a young female (Meyer et al., 2002). However, studies in the United States have attempted to measure the personality characteristics of a dietitian. In 1961 a small study of 80 dietetic students looked at the personality differences between dietetic and nursing students. This was notable as it was the first study to examine the characteristics of dietitians (more precisely dietetic students), using a tool called the ‘Thematic Apperception Test’. Although conducted on a small number of students and within a single training institution, this study helps build a picture of a typical dietitian. This study found that the student dietitians put much greater emphasis on achievement, success and prestige, than their nursing counterparts. They also possessed a greater confidence and in dealing with others and a more positive feeling towards patients (Cleveland, 1961). Another US study looked at 243 randomly chosen clinical dietitians who were employed and members of their professional association. They used the Myers-Briggs Type indicator to measure the dietitians’ personality traits. The conclusions were that clinical dietitians were more likely to be introverted, sensing and judging types, and as such were the type of people who enjoyed handling concrete experience, being well-organised and paying attention to detail (Brown Fellers, 1974). The
most recent study (albeit still over 10 years old) revisited this topic, but within a training institution examining students over a seven-year period. The results were surprisingly similar to earlier findings. Most dietetic students were the sensing-judging types. Only a small number fit the intuitive-feeling profile. The author suggested that this might be due to the emphasis on the science aspect of nutrition (Hagan & Taylor, 1999). In Australia the same emphasis is placed on a solid science foundation as all students must undertake core science subjects within their degree (Dietitians Association of Australia, 2012).

The characteristics of dietitians described in these studies make sense, considering that the dietetic profession is historically a science-based discipline. In the US this eagerness to be viewed by others as a science-based profession is illustrated by a recent name change of their dietitians’ professional association from the American Dietetic Association to the Academy of Nutrition and Dietetics. The reason behind this name change was explained by its president, Sylvia Escott-Stumpf, on their Eatright website (2012): ‘The name Academy of Nutrition and Dietetics promotes the strong science background and academic expertise of our members, primarily registered dietitians. Nutrition science underpins wellness, prevention and treatment’ (Eatright, 2012).

Therefore it is not surprising that those within the profession exhibit the characteristics and values of a person trained in the positivist paradigm. A science paradigm trains the student in an epistemology where objectivity and rational thought are highly valued.

Also, this study found that all participants shared a strong belief in the principles of nutrition and health, and most were attracted to the area because of their fundamental belief that nutrition underpins good health. This passion was evident throughout all the interviews. This is supported by the wider literature, where many studies have also found a belief in nutrition principles to be a common reason why many choose the profession (Hughes & Desbrow, 2005; Stone et al., 1981a; Dalton et al., 1993; Devine et al., 2004)
6.5.2 The Culture of the Public Hospital and Its Impact on the Dietitian

Our findings illustrate the omnipresence of medical dominance in the NSW public-hospital system. This phenomenon was first described in the early 1970s by medical sociologist Eliot Friedson, who termed it ‘professional dominance’. His book detailed the longstanding history of medical practice and how the medical profession gained control or dominance over other health-care professionals (Freidson, 1970). There is debate within the literature as to whether the extent and degree of medical dominance is changing (Coburn, 2006; Allsop, 2006; Kenny & Adamson, 1992).

Closer to home, medical dominance appears to be alive and well in the NSW public-hospital system. A recent study that looked at a multidisciplinary specialist clinic located in a Sydney teaching hospital found a chasm between the theory and practical realities of the principles of medical democracy (that all clinicians had an equal voice in the care of the patient) on which it was founded. However, the results showed that, despite the earnest intention of the senior staff specialist, he still dominated the patient-care protocols and that there was a well-established hierarchy of importance within the team. The study concluded that although a lofty ideal, and one in that has been shown to improve patient outcomes (Long et al., 2006), it is in fact a very difficult one to achieve in practice. Thus, despite the medical-dominance model of care being challenged at the macro and meso levels (Tousijn, 2006), there is still a long way to go (Churchman & Doherty, 2010). It is important to note that the research also highlights that the resistance to a true interdisciplinary team approach was not necessarily at the level of the doctors, but across the whole team, induced by their own internalised value systems that mirrored the pre-existing hospital culture of ‘doctor knows best’. This has been found in similar studies overseas: even with well-functioning multidisciplinary teams, a hierarchy exists amongst the members, with allied health and nursing at the bottom of that social system (Pagliari & Grimshaw, 2002).
In the light of the literature, these findings support the claim that medical dominance is alive and well in the NSW public-hospital system, as many of those interviewed raised the issue of not being given professional autonomy. The literature also includes examples of the lack of professional autonomy for other allied health professionals, both within Australia and abroad (Paris, 2008; Wilding, 2011; Moore et al., 2006; Kenny & Adamson, 1992; Ovretveit, 1985; Bergman, 1990; Chanou & Sellars, 2010).

The dietitians in this study did acknowledge that there was a culture within the hospital of undervaluing their expertise, and failing to recognise their professional autonomy. While there were exceptions, as the specialist and rural dietitians felt this was not the case in their areas of work, this reality of poor recognition for dietitians has pervaded the profession over a long period of time and across international borders. In 1964, an editorial piece written by a senior manager of dietetics with a PhD described the extensive training, skills and knowledge of a dietitian. It included a description of how a dietitian should work with a physician:

What should be the dietitian’s responsibility to the physician? First of all, it should be one of loyalty since the physician is ultimately responsible for the patient-centered activities which must be carried out and his authority should not be questioned. On the other hand the dietitian may supply the physician with useful information upon which he may base his decisions (Johnson, 1964).

If this excerpt were simply a historical narrative of the early stages of maturation of the dietetic practice it could be viewed as a quaint artifact and given its rightful place in dietetic history. However, there appears to have been little progress in this area despite the rise and supposed fall of medical dominance (Coburn, 2006). A job-satisfaction survey of South African dietitians showed that the 317 dietitians surveyed had a low level of job satisfaction
and high levels of dissatisfaction in a number of areas including treatment by doctors. They provided additional comments within the survey:

‘I have to continuously fight doctors and consultants for nutritional interventions to be set up.’

‘Doctors don’t respect your opinion and don’t want to keep up top date with current trends.’ (Mackenzie, 2008).

A small study conducted in 1978 amongst clinical dietitians in the US found that this group discussed lack of status as a real issue; one of the toughest problems they faced was gaining professional acceptance (Broski & Cook, 1978). This work has been followed by several more studies that have recognised the need for dietitians to gain professional autonomy and recognition as the nutrition experts (Stone et al., 1981b; Devine et al., 2004; Whaley & Hosig, 2000). The need for professional autonomy and recognition applies equally to other health-care professions such as nursing. Findings from the magnetic hospital studies in nursing have developed three key pillars of practice, one being clinical autonomy (Kramer & Schmalenberg, 2008). This is equally applicable to other allied health professionals, in particular the generalist dietitians. These findings confirm this study’s results and demonstrate that this issue is felt more broadly amongst the non-doctor health professions and nursing.

6.5.3 Learning and Acquisition of Knowledge

This value source is consistent with many of the studies that have examined job satisfaction amongst dietitians. Research in this area has shown that a stimulating work environment is viewed by many as a positive aspect of their work, viewed highly by managers and clinicians alike (Sauer et al., 2010b, Sauer et al., 2010a). A study examining new graduates found
variety and opportunities for learning an important factor in their overall enjoyment of their position (Stone et al., 1981b). In our study the acquisition of knowledge was viewed as a source of value across all career stages.

6.5.4 Understanding the Role of the Dietitian

This study showed that most dietitians felt their role was not well understood by others, including patients. This was even noted in the rural setting, where they spoke of the ready acceptance from the rest of the team, but in a capacity that did not fully use the full extent of their expertise. This has also been reported within the literature. One study specifically examined role ambiguity and job satisfaction and found no correlation, but it did note that the generalist or clinical dietitians sampled had higher levels of role ambiguity than managers (Agriesti-Johnson & Miles, 1982). Another study examined the differences between physicians and dietitians with respect to the role of a dietitian, finding doctors believed dietitians should be more involved in food-service functions and less involved with the clinical care of the patient; this was significantly different to the dietitians’ view of their own role (Boyhtari & Cardinal, 1997).

An Australian study examined the tasks undertaken by dietitians by requiring the participants to select from a list of tasks those they agreed dietitians should perform. The study also asked a group of general practitioners the same set of questions. The results showed that the doctors were in disagreement with the majority of dietitians for the tasks of menu selection and meal-accuracy checks (Scott, 1987). More recent work contends that role ambiguity is a potential source of conflict for dietitians (Gingras, 2010, Devine et al., 2004). This ambiguity can be due to a variety of reasons, from the type of intervention and the unrealistic expectations of others to the everyday complexities of the dietetic management of clients’ change in diet. Findings in this study are consistent with the
broader literature in that dietitians feel there is lack of understanding about their role and potential, even amongst the general public.

6.5.5 Emotional Connection to Others or Relationships

Relationships were a major source of value across all the career stages. This value source was particularly important for the specialists and the mid-career dietitians. Often the reason cited for selecting dietetics as a career is working with people. This aspect of the job is one of the most rewarding for dietitians (Sullivan et al., 2006). Dietetic work within any institution requires teamwork, whether it is with other health-care professionals or the patient and the patient’s family (Wassink & Chapman, 2010). The reality is that most dietetic interventions need assistance from others to be effective. These can include reinforcement of the importance of the nutritional care, more practical assistance at meal times, ensuring that the appropriate meals are delivered and that patients are weighed regularly and ensuring patients’ co-operation and interest. This heavy reliance on others means there must be a recognised appreciation and value placed on the dietitians’ role. Examples of when these relationships can break down are a doctor dismissing the dietary requirements or providing contradictory advice to the patient, or the nurse not measuring the patients’ weight, despite this being a recognised clinical measure, or failing to screen for patients’ nutritional risk. When these relationships become dysfunctional or strained, it can be a source of tension and dissatisfaction, as indicated in our findings.

6.5.6 Rural Counterparts

There were four rural interviews from four different rural settings. Although there were many common themes, it was apparent that the context in which these dietitians operated was very different to the metropolitan, district and tertiary hospitals. The main difference appeared to be in the culture and type of work performed. There was less evidence of
medical dominance and far more reliance on teamwork and acceptance of all within the health-care team. The major reasons for selecting a rural position were the opportunity of employment and the lifestyle. All rural participants were married to a local resident or had strong community ties that kept them in the area. Also they spoke of the ease of the lifestyle, and the flexibility their positions provided. There was a far greater sense of multidisciplinary team membership across the service, as all were sole practitioners. However, their role recognition was poor and all but one felt their full range of skills was not used. The exception was the manager, who was responsible for a few technical staff and who was the designated rural senior representative at state-level forums. The manager in this group felt she was obliged to be a jack-of-all-trades and took on responsibilities far greater than would occur in a similarly graded position in a larger hospital. These findings were consistent with the available Australian literature (Denham & Shaddock, 2004; Brown et al., 2010; Struber, 2004). One study found that the scarcity of jobs led some to enter rural dietetics, and a rural lifestyle was seen as both a detractor and a positive: some enjoyed the comfort zone or familiarity with the setting because they were from a rural background themselves (Manahan et al., 2009). Other studies found that the support networks, flexibility and greater degree of autonomy were seen as an advantage, but they did note the professional isolation and lack of peer support (Heaney et al., 2004). This was also found amongst physiotherapy professionals, who found the autonomy, greater flexibility and recognition by other members of the health-care team to be positives, but the lack of professional development and cost of travel to educational events to be negatives (Williams et al., 2007).

This study found that for those who remained over the long term (one for 20 years and the other for 10), the main reasons cited were community involvement and support. The two younger dietitians were still in the life stage where family and flexibility were paramount:
one had young children and the other was expecting her first child in the next few months. There was a notable lack of difference between the levels of dietitians, but this may have been due to the small sample size, as only four rural dietitians were included, one from each career stage.

All these factors emerged from the four rural interviews: lifestyle, flexibility, social support, autonomy and acceptance as a critical member of the team. However, the downside was the lack of complex cases, and respondents also raised the mismatch between skills possessed and those required was also raised. The differences in this group do suggest that the culture of the hospital system plays a major role in determining how dietitians perceive their role, and consequently their value.

6.6 Limitations of the Study

This study was undertaken involving 32 dietitians across 11 hospitals. Therefore its generalisability is limited, and it can only faithfully produce a model that depicts how the 32 dietitians interviewed felt about the workplace. Although it followed a GT approach, it did not use theoretical sampling as suggested by experts in GT (Glaser & Strauss, 1967). Rather, it used purposive sampling, which, it can be argued, introduces a bias and may not accurately reflect the wider view across this workforce. However, the counter-argument is that the selection of participants was based on the previous chapter’s findings using the state-wide burnout survey, which highlighted the factors most associated with higher levels of burnout. Another limitation is the bias of the author, who was also the researcher. The author’s position within the dietetic community may have altered the answers provided by the participants. This is a dynamic piece of research: the conceptual model is open to criticism and refinement and is limited in relevance to the time period studied. It would
require a longitudinal approach to measure if and how changes may occur over a time period. This was a cross-sectional study and it may be influenced by environmental factors such as budgetary constraints or recent events within the workplaces. Also, the bias of the researcher may have unintentionally influenced the results. This was partly addressed by the reflexivity of the researcher, but it cannot exclude the possibility of researcher bias affecting the outcomes. The concept developed is ongoing and dynamic, and will continue to develop through further critiquing and revision by a wider audience. It is not a finished product, simply a stage in the development of a model that helps explain how dietitians feel about their workplace.

6.7 Conclusion

This study found that hospital dietitians sought value from five different areas within their workplace. A core category, expressed as the ‘Five Sources of Value, was developed through an inductive process using a grounded-theory approach. It identified five major sources of value for dietitians within the hospital system, and demonstrated that the importance of each source changed throughout the career stages. This has relevance for managers of dietetic departments, which may extend to other allied health professions. Similar research in the nursing literature has shown a number of factors affecting how nurses feel about their workplace, including autonomous clinical practice, status of their profession and supportive relationships with other professionals—one in which there is mutual respect and concern for providing quality care to patients (Lyons et al., 2003; Murrells et al., 2008; Hayes et al., 2010; Kramer & Schmalenberg, 2008). This study showed this is also applicable to dietitians, as they also need to be valued in terms of access to
learning, relationships, respect for their professional autonomy and decision-making and the appropriate level of recognition.
Chapter Seven: Discussion

7.1 Introduction

This thesis set out to explore how NSW public-hospital dietitians felt about their work. It tackled this question using a multimethod approach that allowed the question to be explored from a number of different perspectives: first, it closely examined what constitutes hospital dietetic work; second it measured how dietitians in the NSW public-hospital system felt about their work, using burnout as the measure; and, third, it presented an in-depth exploration of factors that contributed to why dietitians felt a certain way about their jobs. The purpose of this chapter is to integrate the findings from the three separate studies. It will first provide a summary of the each of the three studies’ findings and then integrate these findings.

7.2 Summary of the Findings from Chapters Four, Five and Six.

Chapter Four found that the majority of tasks (81.7%) of tasks of a dietitian working in an inpatient setting were concerned with the assessment, diagnosis and immediate intervention plan. There was very little time available for patient education and counselling. It also showed the differences between dietitians working in the inpatient and outpatient settings. This showed that outpatient dietitians spent more time with their patients and less time in the indirect care activities.
Chapter Five found that: dietitians employed full-time are more likely to experience higher levels of burnout than part-time staff; part-time workers with children had lower levels of burnout; there were differences between the levels of staff with level 2 and managers having higher levels of burnout than either new graduates or specialists. This is the first study to differentiate between career stages using an industrial classification rather than years of experience.

Chapter Six developed a core category using a GT approach to help explain the relationship between NSW public-hospital dietitians and their workplace. This core category called the ‘Five Sources of Value’, showed how dietitians sought validation from their workplace from five sources: acquisition of knowledge, relationships with others, the work culture, role clarity and self-attributes. The relative importance of these values changed according to the career stage of the dietitian.

7.3 Integration of the Three Studies

The results of these studies were integrated during the interpretation stage of analysis. The result of that process was the development of five major findings: hospital work processes; characteristics of a hospital dietitian; sources of value in the workplace; career stages of a hospital dietitian and differences between city and rural hospital dietitians.

7.3.1 Hospital Work Processes

This study found that most of the work carried out by a hospital dietitian occurs away from the patient/client. Although ambulatory-care or outpatient-based dietitians spent more time with their patients, this still accounted for less than half of their day. These findings were consistent with those for other health-care professionals, such as nurses or doctors,
who worked in similar environments (modern-day hospitals in industrialised nations) (O'Leary et al., 2006; Hendrich et al., 2008; Westbrook et al., 2008; Zhu et al., 2008). It would appear that health professionals who provide clinical care to patients in the 21st-century hospital spend most of their time carrying out tasks that do not directly involve the patient. This suggests that the business processes inherent in the contemporary hospital require health practitioners to work in isolation from their patients. In this study those patient-care activities occurring away from the patient included reading and writing medical notes, formal and informal discussion with other health-care providers and the logistics of providing their service.

The relevance of these findings lies in how health professionals value each of their main tasks. Less than 1% of inpatient-based-hospital dietitians’ time was spent in counselling and education, yet this task is viewed more broadly by the profession as providing a source of job satisfaction and enjoyment (Sullivan et al., 2006; Dalton et al., 1993; Devine et al., 2004), and a task that is an essential component of the dietitian’s skill base (Schiller, 1985). However, it should be noted that this figure of 1%, although low, is not unusual given the emphasis by hospital management on providing: assessment, diagnosis and immediate care. The definition used in this study of counselling and education may not include a more sophisticated definition that would identify when counselling and education occur during other tasks such as assessment and review. In contrast to the inpatient dietitian, this study found that dietitians who worked in the outpatient setting spent 5.5% of their time in counselling and education. This suggests that the outpatient dietitian would be more satisfied with their work, as they are able to undertake an activity that has been shown to provide them with a source of satisfaction. In this study a comparison in level of burnout experienced between the inpatient and outpatient dietitians found no difference. This may have been due to the small numbers in the study, or it could suggest that other variables
play a more important role in determining the level of burnout experienced by dietitians. The time spent with the patient, although cited as important by dietitians, may be just one of many factors that affect the level of satisfaction of a hospital dietitian.

Some other factors, as identified in other research, have included the ability to make a difference to their clients; feeling respected and valued by both patients and other team members; access to further education; and reasonable workload (Agriesti-Johnson & Broski, 1982; Myrtle, 1978; Van Heerden, 1976; Hughes et al., 2011; Dalton et al., 1993; Mackenzie, 2008; Cody et al., 2011). It may be the case that the immediate work area is not a main driver in determining perceptions about the workplace, and that other factors within the wider hospital environment and the individual characteristics of the dietitians play a far more pivotal role. This thesis found that the difference in burnout was associated with; the career stage of the dietitian, number of hours worked, number of children and position within the organisation. Burnout was highest at two career stages: early-career generalists (two to six years since graduation) and dietetic managers. It was lowest in part-time workers, specialists and new graduates. This study also found in the in-depth interviews that most dietitians were conversant with the hospital system, including the internal processes, and comfortable with this environment.

The qualitative analysis, using a grounded-theory approach, revealed five factors affecting how dietitians felt about their job: access to learning and development, the culture within their own workplace, their role being understood by others, their relationships with patient and staff and their own internal value system and personal attributes. These findings suggest that the dietitians’ perceptions are mediated via these five sources of value.

The specific work areas examined in this study, outpatient and inpatient work did not appear to play a major role in determining how dietitians felt about their workplace. This may have been due to the under-representation of dietitians within some of these settings
or the lack of exclusivity of the workplace within the public-hospital system. In some work settings the hospital dietitian may work across a variety of areas and not identify exclusively with any particular one. It did show that part-time dietitians had far higher levels of personal accomplishment and less burnout than their full-time peers. Having children was also positively associated with reduced stress and greater levels of personal accomplishment; this is not surprising given that studies have shown that length of time worked can affect the dietitians’ level of job satisfaction (Clayton et al., 1998). The investigation of these factors was beyond the scope of the research, but it would be an interesting question for future research, as part-time employees represent a growing segment within this workforce.

7.3.2 Characteristics of a Hospital Dietitian

This study found that dietitians within the NSW public-hospital system chose their career based largely on a genuine interest in nutrition and health. This is a common finding in the broader literature (Hughes & Desbrow, 2005; Gingras, 2010; Kobel, 1997). In addition, this study showed that dietitians in this work environment enjoyed the structure and processes of a hospital, as they provided clear work expectations. The busy work environment and constant changes were seen as a positive aspect of this workplace. The ‘hustle and bustle’ was a source of stimulation and provided them with access to learning. Also, the fact that the hospital system relies heavily on a team approach to patient care added to its appeal, as this was highly valued by dietitians. Working within a team structure was a double-edged sword, providing both support and frustration. The dietitians were keen to meet the expectations of their employers, and paying careful attention to the processes was a high priority. There was a general acceptance of their situation and an underlying optimism that they still make a difference despite the obstacles they must overcome. These findings resonate with earlier studies in the US that examined the characteristics of a ‘ typical’
dietitian. Dietitians view themselves as highly professional (Johnson, 1964), well-trained and, when in management positions, empowered (Mislevy et al., 2000). The profession, as a whole, highly values teamwork (Wassink & Chapman, 2010). It has been noted by some authors that dietitians needed to be more assertive, and in the early 1990s there was a ‘call to arms’ by the American Dietetic Association for hospital dietitians to become more active and fight for greater autonomy in clinical decision-making (Gaare et al., 1990). Yet, in the US at least, the call appears to be unheeded, as the profession has gained little ground in the last 20 years, if remuneration is reflective of status: according the American Bureau of Labor Statistics 2010, they still remain the second-lowest paid allied health profession in the US (BLS, 2010). This has been a longstanding a concern of the profession in the US (Torin & O’Keefe, 1989).

The perceived lack of status of the profession within the workplace has been discussed within the literature (DeVault, 1995; Blanke, 1982; Gingras, 2010). It has been postulated that dietitians become professionalised, not only during their training (DeVault, 1995), but continuously once they enter the workplace (Maclellan et al., 2011). When this workplace is a well-known and respected institution such as the Australian public-hospital, it may give the dietitian a degree of status. This may explain in part why, despite the fact that many acknowledge this work context to be a source of frustration and limitations, it also has the potential to provide fulfillment.

Paradoxically, despite US dietetic managers feeling a sense of empowerment, this has not been noted across the board. A survey of US dietitians found that this group did not feel empowered (Garey & Mandel, 1993) and earlier studies have indicated that dietitians may have a self-perception problem, as doctors ranked dietitians more highly than they ranked themselves (Finn et al., 1991; Finn et al., 1988). Another author conducted a small qualitative study and postulated that dietitians were uncomfortable with the attainment of
power, and more concerned with relationships, and displayed a degree of naivety about hospital politics (Blanke, 1982). These studies were conducted over 20 years ago and in the US, yet they share similarities with the findings of this study. This study found that dietitians often felt powerless to exert change within their environment. They accepted this position, albeit reluctantly, and discussed ways of working within the system to ‘earn your stripes’. A study examining the position of dietitians within the Swedish public-hospital system found that they developed, what the author described as an ‘inner dialogue’ to find a place within the hospital hierarchy. In examining the interplay between doctors, nurses and dietitians, the author described nurses as the ‘wives’ of the doctor whilst the dietitians were the ‘mistresses’ (Wikström, 2008). Viewed from a more cynical perspective, this could be seen as a description of the power bases of nurses and dietitians. In this context, dietitians could only exert their influence in a covert and illegitimate manner, whereas nurses had an overt and legitimate power base.

In this study, dietitians often described how they had to manage their role within the health-care team by carefully developing a reputation amongst the medical and nursing staff. This was often achieved by an extension of their normal work practices, such as becoming integral members of clinical research projects, and participating in ‘out of hours’ medically driven activities such as ward rounds and education sessions. Hence it was achieved through personal endeavour, as opposed to having a recognised role and position within the hospital system. Although dietitians are extremely well-trained and characteristically dedicated, they still struggle to attain professional autonomy and recognition. This struggle means that they cannot always provide a service commensurate with their level of expertise. Despite this limitation, it was noted throughout the interviews that most were accepting of this reality, almost adopting an assumed position of powerlessness, even from very early entry into the workplace. Over 30 years ago hospital
dietitians were described as being ‘conditioned in their clinical training and job orientation, to be highly standardized technicians’ (Blanke, 1982). In this study there was a ready acceptance of political powerlessness, which suggests a cultural determination of this position, rather than an individual belief. Dietitians are caring, nurturing health professionals who appear reluctant to aggressively challenge the established medical dominance of the health-care system. Instead, they seek less-confrontational ways to redress their lack of status, such as further education and internal recognition or association with other health professions, to gain a broader role recognition (Skipper & Lewis, 2006).

7.3.3 Sources of Value in the Workplace?

The results of our exploration suggest that dietitians did feel they have the ability and expertise to be valuable members of health-care teams in the NSW public-hospital system. However, at times, they felt stymied by the institutional processes and cultural expectations within this work setting. This frustration was indicated by the presence of burnout and through the analysis of the in-depth interviews. Broadly speaking, hospital dietitians have lower than average levels of burnout than medical normative values, but closer interrogation of the data showed that career stage was an important consideration. We found that mid-career generalists and managers had above-normal levels of burnout and significantly higher than the new graduates and specialists surveyed.

This study developed a model that depicted the sources of value for dietitians within the NSW public-hospital system. This model provides some possible reasons or sources of difficulty for those groups that were seen as experiencing higher-level burnout. Dietitians need to feel they contribute something of worth or value to the workplace. The results of this study may be explained by the ability of these dietitians at each career stage to craft...
their job into something that they find enjoyable and useful. The term ‘job crafting’ has been defined as the physical and cognitive changes individuals make in the task or relational boundaries of their work (Wrzesniewski & Dutton, 2001). It may be that new graduates, although powerless to change the physical boundaries, are so early into their career that the need to acquire more skill or cognitive awareness is enough to keep them happy and engaged. In contrast, those in mid-career have ‘hit the wall’: they can’t change boundaries and have little access to avenues such as specialisation, and see no way to move forward. The specialists have carved their niche within a broader medical team that values their expertise. At the same time, managers may have come to realise the limitations and have been worn down by the constant struggle to change boundaries within their workplace. It has been well-established within the job-satisfaction literature that for most employees, feelings of worth and value are central requirements for job satisfaction (Lyons et al., 2003). Dietitians are no different: this work has illustrated that where they find their value within the NSW public-hospital system can be a source of fulfillment and frustration. The finding that the sources of value can produce polar opposite reactions is similar to work by Gingras, who interviewed Canadian dietitians across a range of work settings and found that despite their passion for dietetics was often accompanied by melancholia (Gingras, 2010). This work explained this juxtaposition as the tension created when the ideal of dietetic practice meets the cold, harsh reality of dietetics in the workplace.

7.3.4 Career Stages Do Matter in Hospital Dietetics

Another finding was how each of the five values changed in relative importance among the career stages. The overall aim of this study was to explore how dietitians felt about their workplace and to draw out the possible factors that influence this perception. It showed that career stage was an important factor that affected how dietitians may feel about their workplace; this was evident in both the cross-sectional survey and the in-depth interviews.
To the authors' knowledge this is the first study that has used the industrial classification of dietitians as a measure of career stage. A number of studies have examined this area, but these are largely based on number of years of experience and have focused on specific requirements at each career stage, such as why they selected the profession (Stone et al., 1981a; Stone et al., 1981b), their level of job satisfaction (Barr & Russell, 1992) and access to ongoing educational opportunities (Fargen et al., 1982a; Fargen et al., 1982b).

One Australian study investigated the relationship between the career phases and attitude to work of a group of 414 female dietitians, 73% of whom worked in hospitals (Smart, 1998). It measured satisfaction, commitment and involvement using a series of structured survey instruments. It assigned each dietitian to Super’s four career phases (exploration, establishment, maintenance and deterioration) (Super, 1957) using a combination of the individuals’ age and a measure of the ‘focus of concerns’. Smart’s study found that in the exploration phase dietitians were less satisfied with pay and more willing to relocate for better career options. At the maintenance phase dietitians had the highest level of career and professional commitment but were least satisfied with their supervisor and promotional opportunities. Those in the establishment phase were less likely to move to seek further career opportunities. Overall, there was no change in the organisational commitment across the four phases, which, according to the author, suggests dietitians are more committed to their profession than an organisation or a career. A comparison with the findings in this study is problematic due to the different criteria used in the assignment of career phases and the type of instruments used to measure the constructs. A crude comparison does illustrate an overall level of commitment to the profession across all the phases; this was also evident in our study. However, it also highlights the limitations of structured-survey tools in eliciting individuals’ views about their work. The actual reasons or motivations behind the final scores in a structured survey may be misinterpreted. An
example of this can be seen in the issue of pay; this was found to be an issue in the Smart study, but it was not raised by any career stage in this study. The new graduates only spoke of changing jobs to find permanent employment, not for career advancement, as suggested by Smart.

This study found that all career stages shared the five sources of value, but the relative importance of each was unique to their career stage. New graduates sought validation through the acquisition of knowledge, the consolidation of their skills and a supportive culture. The mid-career dietitians yearned for role recognition and greater professional autonomy. The specialist relied on the professional recognition and the relationship with others within the health-care team, whilst managers exhibited an innate belief in their role and importance.

7.3.5 Differences Between Rural and City Hospital Dietitians

There was no significant difference in levels of burnout between the rural and non-rural dietitians. However, the in-depth interviews did indicate that rural hospital dietitians are more heavily influenced by the hospital culture and personal attributes than their non-rural counterparts. Although all five sources of value were present across the career stages, there was not the same hierarchy within each career stage. The most important influences for the four rural dietitians were the cultural aspects of the workplace followed by the personal attributes of the dietitian. The participants described a culture that was open and supportive, with diverse work requirements. One subject described herself as ‘a jack of all trades’. But the interviewees did raise the issue of limited professional support; in other words, professional autonomy was an unavoidable reality, not a choice, for rural dietitians. A strong social network was also present, and the personal attributes of the choice of lifestyle over career featured prominently across all interviews. These findings are
consistent with other studies that have investigated the area of rural dietetics. One study found the ‘rich variety of work, the autonomy and lifestyle ‘ were major incentives for working in the rural setting (Heaney et al., 2004). These are common findings in the rural allied health workforce (Denham & Shaddock, 2004; Manahan et al., 2009; Keane et al., 2010). However, in contrast to this study, the lack of role clarity and recognition of expertise have not been specifically raised within the broader literature. Thus, in spite of the supportive multidisciplinary team environment, dietitians’ acknowledged every team did not always ‘get’ what the dietitian could offer.

7.4 Limitations of This Research

There were several limitations to this study. The observational study (Chapter Four) was conducted across a small number of sites (seven). Therefore, the results cannot claim to be representative of the NSW public-hospital system. It used a convenience-sampling technique to recruit participants; this may bias the results. Also, the fact that this was an overt study may also have influenced some of the behaviour of the participants; moreover, the data collection was carried out by student dietitians who may have assigned tasks incorrectly due to a lack of knowledge. The cross-sectional survey (Chapter Five) was voluntary, and this may have skewed the results, as those feeling restricted in time or stressed may not have participated in the survey; this was offset to a degree, by the response rate being 50%. Also, those staff members who were not well networked to a senior dietitian may not have been included. The GT analysis of the in-depth interview study (Chapter Six) was a cross-sectional design. Using a longitudinal design study would enhance these findings by assessing any changes over a time period. In addition, the model developed would benefit from more research to further refine and test the robustness of
the initial findings. Also, the inherent bias of the researcher may have influenced the findings.

7.5 Conclusion

This thesis has brought to light the major factors that shaped a group of NSW public-hospital dietitians’ view of their workplace. The original question posed was: ‘True love or a marriage of convenience?’ It would appear that for most, it was originally a marriage based on true love, but for many it has become one of duty, obligation and maybe even resignation. The dietitians who participated in this research sought validation and affirmation from five major sources, describe by the researcher as the ‘Five Sources of Value’: acquisition of knowledge, cultural aspects of the workplace, role clarity and recognition, relationships and their own personal attributes. The relative importance of these sources changed through the career stages. This research provides a fresh insight into what matters to a hospital dietitian, and, in addition why these things are important. It is this insight that has often eluded previous researchers who have relied heavily on structured survey designs. Even those researchers admit that a survey does not provide all the answers. The author of a recent thesis published in the area of job satisfaction in US dietitians wrote:

‘Nature of work itself was a strong source of satisfaction for the majority of dietitians in this study, making it clear the need for a new baseline of knowledge that illustrates which elements of the work of dietitians are particularly satisfying or dissatisfying and why’ (Sauer, 2009 pp. 126-127).
The current study, on how NSW public-hospital dietitians feel about their workplace, contributes to the baseline knowledge by further illuminating the ‘which’ and ‘why’ elements a referred to in the excerpt from Sauer.

This thesis explored in depth the beliefs and attitudes of a group of hospital dietitians, and created a conceptual model to explain these findings. The robustness of the core category was further established by review and critique from outside the study participants. When this work was presented to the broader dietetic profession, and other allied health professions such as occupational therapy, physiotherapy, social work, speech pathology, and allied health managers (Appendix Three), they reinforced many of the conclusions as they spoke of their experiences. The wider acceptance of these findings strengthens the claim that it may be more generally applicable to similar allied health professions working within this context.
Chapter Eight: Implications for Professional Practice

8.1 Introduction

The major purpose of a Doctoral of Business Administration (DBA) is to make a significant contribution to professional practice. It has been described within the academic literature as ‘a professional doctorate for managers or management professionals, that is, it is a doctoral-level program that will help the professional development of practitioners’ (Perry & Cavaye, 2004).

The findings in this thesis have the potential to help dietetic managers across NSW create a supportive work environment by addressing issues identified in this research. This chapter outlines four major contributions to professional practice: the creation of a career-development program, the critical role of functional interdisciplinary teams, and the establishment of the dietitian consultant and the identification of inefficient hospital business processes.

More broadly, this work provides further evidence of the untapped potential of a skilled workforce. This information may help senior managers within health to lobby for changes that will allow for the optimal use of dietitians and the larger group of allied health professionals. This work demonstrates a gap between practitioners’ view of what they should contribute and what they actually do: the gap between the theory and reality of dietetic practice in hospitals.
8.2 Career-Development Framework

This research highlighted the differences across the four career stages in the dietetic workforce. The composition of a hospital dietetic department can have a significant affect on the range and type of services it can provide, and it is the responsibility of the manager to ensure that all staff are adequately supported in the discharge of their duties. Managers forearmed with information about the particular priorities of each career stage are able to target their staff-development programs to meet the needs of their staff. The quest for knowledge in new graduates, and the need for role recognition and increased autonomy for mid-career and specialist dietitians, all assist in the creation of a customised staff-development program.

The researcher created a customised career-development program tailored to a local nutrition service. This program was known locally as ‘Step Up’, as it referred to employees’ ability to increase their proficiency and ‘step up’ to the next level of competency. A number of critical steps ensured acceptance of this initiative within the department. The change-management literature emphasises the importance of staff members’ level of readiness for change and engagement in the process (Campbell, 2008). With this in mind, a deliberate and systematic process was followed in developing and implementing this program. All senior clinicians and middle managers were given the ‘big-picture’ view and an overall goal for the program. After several meetings and discussions with all staff, the seniors were then given the task of developing the operational aspects of the Step Up Program. (Appendix Four provides a comprehensive overview of this program.) It addressed the major needs identified within the present study and included a list of measurable outcomes so that the progress of each staff member was clearly articulated. Step Up was designed for staff, not senior management; therefore, the manager career stage was not included.
8.3 Improved Use of Dietetic Expertise: Are Interdisciplinary Health-care Teams the Answer?

A common issue raised in this research was the perceived restraints placed on dietitians in the provision of their services. These limitations crossed a number of the value sources, including poor role recognition among health-care staff, the historical practices of hospitals and the culture of medical dominance within the workplace. All played a role in restricting dietitians’ ability to provide the full range of their expertise within the public-hospital system. This area is particularly important, as it highlights the increasing need for effective interdisciplinary health-care teams in the NSW public-hospital system. This work has shown the inconsistency in the functioning of these teams across NSW hospitals. The evidence was gathered through the first-hand accounts of dietitians, who felt that at times there was a lack of equality and mutual respect within their workplace. It also gave examples of where the team approach worked well providing role recognition and contributing to the dietitian’s sense of worth. The concept of interdisciplinary team care was first raised in the US literature in the 1940s, in response to the recognition of the increasing complexity of health-care (Drinka & Clark, 2000). However, the issue of professional boundaries remains an issue despite the inroads and the many successes of effective team health-care (Molyneux, 2001; Rafferty et al., 2001; Humphris & Hean, 2004).

The inclusion of interdisciplinary team teaching in the syllabus of all health professionals is the first logical step in promoting this approach as an effective way to deliver health care. The development of skills and knowledge across all health professionals is an integral step, as training provides the foundation for cultural change in the workplace. A cautionary note is that effectively changing a culture requires a multilayered approach; the implementation
of interdisciplinary team care is a prime example. The literature supports the concept of interdisciplinary team care, and has demonstrated its effectiveness, but it is still an area that requires further development (Reeves et al., 2008) as a sizeable gap remains between theory and practice (Atwal & Caldwell, 2005; Kenny & Adamson, 1992). The identity of a profession develops not only in the training phase, but, more importantly, during the initial entry into the workforce (Black et al., 2010; Duchscher, 2009; Maclellan et al., 2011). Therefore, a multi-pronged approach is required to ensure the successful translation of theory into practice within the workplace. Changing a well-established practice, such as medical dominance, requires the workplace to accept and embrace what some would view as a radical change, and this will require a significant cultural shift. This study highlighted the existence of professional dominance within the NSW public-hospital system; hence, this is an area that requires attention by those in a position to make positive changes to this work culture.

8.4 The Development of a Tiered Workforce: The Creation of the Dietetic Consultant

The lack of role recognition was raised in the research and represented a source of frustration for dietitians working in this environment. This led to an underuse of dietitians’ full range of expertise and skills. Their level of annoyance with this was clearly illustrated by comments such as the use of the term ‘Sustagen waitress’ to describe their main role in nutrition care of inpatients. The findings from the in-depth interviews coupled with the results of the observational study are invaluable in helping managers in matching the tasks performed with the skill set required. There is an opportunity to disinvest in those activities that could be performed by support staff such as allied health assistants. This study did
highlight a range of administrative tasks, such as making appointments, changing diet orders and managing patient food selections, that could be performed by ancillary staff, such as allied health assistants. The use of this workforce has grown in recognition with the development of specific training courses. This stratification of the allied health workforce is viewed by many as an opportunity to improve the use of highly skilled staff, with associated benefits such as opportunities for extensions in the scope of practice. In 2008, the South Australian government prepared a comprehensive review on the role of allied health assistants. Although it stated that the evidence was scant for the efficacy of this workforce it did conclude that the introduction of this type of worker could be beneficial, but the programs should be based on well-planned and well-supported research (Lowe et al., 2008).

The development of a tiered workforce for dietitians has the potential to raise the role of dietitians from that of a ‘Sustagen waitress’ to one of a ‘dietitian-consultant’ akin to medical consultants. In practice this position would most closely align with that of the physician or hospitalist (Hillman, 2000), except that their area of expertise would be nutrition. Within that expertise there would still be scope for the acknowledgement and further development of sub-specialties such as intensive care (Taylor et al., 2005), diabetes (Valentine et al., 2003), or renal disease (Burrowes, 1999). The profession has acknowledged the sub-specialties of dietetics (Skipper & Lewis, 2006), and, closer to home, formal recognition of these sub-specialties is covered within the industrial instrument pertaining to dietitians in NSW (NSW Health Service Health Professionals (State) Award, 2007).

The concrete example of how this could change the role of the dietitian is that the dietitian consultant would provide the diagnostic aspect of care and develop an action plan to address the issues. However, the implementation of the nutrition care plan would be
delegated to suitably skilled members within the health-care team. It is the delegation of those tasks that reduces the technical aspect of the dietitian’s role, and promotes the role as a professional who oversees the nutrition care of the patient. This study did show that there are entrenched historical practices within hospital dietetics; these have probably developed as a direct result of the pivotal role dietitians have played in the provision of meals to patient. This link with food service, although understandable, can lead to other health-care workers becoming confused as to the role of the dietitian. This was evidenced in a number of studies that explored how dietitians and doctors viewed the role of dietitians. In both studies the doctors surveyed felt that dietitians should be involved in the technical aspect of meal-provision to patients (Scott, 1987; Boyhtari & Cardinal, 1997). This perception may still be present to a certain extent in the NSW public-hospital system, which may account for the frustration felt by some when their role is distilled down to that of a ‘Sustagen waitress’. In order to ensure the optimal engagement and participation of the dietetic workforce, the profession needs to position itself to use the depth and range of skills to meet the needs of the patient in the 21st-century hospital.

This role extension of the dietitian to fully exploit their expertise is in line with the views of many experts within the field who support extended scopes of practice for a range of health professionals (Gilmore et al., 2011). A simple but strategic change in the time invested in the different aspects of nutrition care could address some of the issues facing the hospital dietetic workforce. This would entail changing the tasks of the dietitian, from routine technical tasks to those of an overseer or coordinator. This creates the dietitian consultant, a natural evolution of practice that is in concert with changing roles in the modern public-hospital system.
8.5 Review of Hospital Business Processes

This research has provided empirical data on the major activities undertaken by dietitians working within the NSW hospital system. More importantly, it shows the time investment in activities and how these times change across different models of care. This information provides the foundation for further analysis using an array of available management frameworks such as total quality management (Talib et al., 2011), continuous quality improvement (Berwick, 1989; Filardo et al., 2009; Ferguson et al., 2003), Six Sigma (Carter, 2010; Corn, 2009) and lean thinking (Varkey et al., 2007; Dart, 2011; Holden, 2011). Although there has been debate within the literature as to the effectiveness of some of these techniques (DelliFraine et al., 2010; Mazzocato et al., 2010), they have been widely embraced by health professionals as ways to improve the health-care system (Ben-Tovim et al., 2007; Crane et al., 2008; Young and McClean, 2009). The debate has centred on the level of evidence for these techniques’ effectiveness and their transferability from manufacturing to health. However, there is little doubt that inefficiency in processes leads to poorer outcomes simply based on the resource investment. If a system has wastage in term of logistics or stock management, the organisation pays for this level of inefficiency.

Chapter Four examined the work practices of dietitians working in the public-hospital system. This showed the time investment across a wide range of tasks in the inpatient and outpatient settings for hospital dietitians. The questions a manager can ask are:

- How much does each of these activities add value to the product, or in this case the dietetic service?
- How many of these tasks require the skills and knowledge of a dietitian, and how many can be provided by less-skilled staff?
- What tasks can be streamlined?

One example is the time investment in many support activities such as documentation. This task accounted for nearly 20% of an entire day of a dietitian working in the inpatient setting. This was far more than was required in the outpatient-based services. This finding suggests that this activity would benefit from a review and an investigation into alternate methods of information management such as electronic medical records, streamlining of data collection to reduce double or even triple-handing of patient information or simply better use of existing information systems.

8.6 Conclusion

This chapter outlined four major implications for dietetic practice within NSW public-hospitals: the creation of a career-development program tailored for each of the career stages, the development of the role of a dietitian consultant, improved functioning of interdisciplinary health-care teams and the review and streamlining of business processes within this work context.

Dietetics is one of many allied health professions working alongside medical and nursing personnel within Australian hospitals. It could be argued that some of these implications also have applicability for the wider allied health workforce within the Australian public-hospital system. The next chapter provides a complete summary of the main findings of this thesis and discusses areas for future research.

Conclusions

This thesis set out to explore the way NSW public-hospital dietitians felt about their workplace. It investigated this area using a multimethod approach (Morse, 2003): an
observational study, a state-wide cross-sectional survey and a series of in-depth interviews. The first study used a direct, overt, ethnographic methodology to examine the day-to-day practices of a group of hospital dietitians. The second study used a validated structured-survey tool to measure the level of burnout within a group of dietitians in NSW hospitals. The third study investigated the factors affecting how dietitians felt about their workplace using a grounded-theory approach.

This work found that NSW public-hospital-based dietitians spend the majority of their time in support activities that occurred away from the patient. These tasks included documentation, reading and communication with other staff. Some differences were observed between the inpatient and outpatient services, but on average more than 70% of time, still involved in patient care but these activities that occurred away from the patient. The state-wide survey showed a number of factors associated with the level of burnout within this workforce. These included level/seniority of position, number of hours worked, number of children and hospital type. Level of the employee and hospital type were used to select the type of participants recruited for the in-depth interview study.

The in-depth interview study showed that five sources of value contributed to how dietitians in the public-hospital system felt about their workplace. The relative importance of these five sources, at each career stage was used to develop ‘The Five Sources of value’. Although each value source was present at every career stage, the ranking of the five values was specific to each stage. New graduates valued most highly the acquisition of knowledge, the mid-career dietitians sought validation through role clarity and within the culture; specialist dietitians found relationships and culture the most important; and managers relied heavily on their personal attributes or internal belief system to find value in their work.
Chapter Nine provides the reader with a summary of the academic contribution of this work and the professional implications for dietetic practice in NSW hospitals. It also outlines the limitations of this research and explores some possible areas for future research.
Chapter Nine: Conclusion

9.1 Academic Contribution

As stated previously, the intent of this research was to explore how NSW public-hospital dietitians felt about their workplace. It examined this question from three approaches: a detailed account of daily activities of public-hospital dietitians across a range of service areas, a measure of level of burnout across the NSW dietetic public-hospital workforce and an exploration of how dietitians felt about their workplace.

The direct, overt observational study gave a clear and detailed record of the range and type of activities undertaken by a group of public-hospital dietitians. It is the first Australian study to examine hospital dietetic work practices using this approach. As such it contributes to an understanding of the area by providing an overview of the time investment in specific tasks carried out by hospital dietitians, and may assist in the identification of issues present within the workplace by documenting the time invested in key tasks. Critically, it also provides a baseline for future comparative studies.

The state-wide cross-sectional survey measured burnout amongst hospital dietitians. Although burnout amongst health-care professions has been widely investigated (Ben-Zur & Michael, 2007; Balogun et al., 2002; Prins et al., 2007; Ogresta et al., 2008; Van Bogaert et al., 2009; Kluger et al., 2003; Kanai-Pak et al., 2008; Brown & Pranger, 1992; Mandy & Tinley, 2002; Pinikahana & Happell, 2004; Fall et al., 2003; Spooner-Lane & Patton, 2007), only a handful of studies have examined this phenomenon amongst dietitians (Kolodny & Chan, 1996; Gingras et al., 2010). This study adds to the knowledge in this area by examining NSW public-hospital dietitians. Its results provide comparative data for both
dietitians and other health-care professions within the Australian public-hospital system, and specifically the NSW public-hospital system. The study also identified a number of factors found to be significantly associated with burnout levels, such as number of hours worked, level of seniority and type of hospital. Some of these factors were used as a basis for the selection of participants in the in-depth interview study.

The results of the in-depth interviews provided a novel insight into the relationship between NSW public-hospital dietitians and their work environment. This study adds to the extant knowledge via the development of a working model that explains in part how dietitians, in this work context, find value in their work. It is also the first Australian study to distinguish clearly between career stages using an industry-based instrument to classify levels of staff and show the different foci of each career stage. This study provides further knowledge about the most favourable and unfavourable aspects of dietetic work in Australian public-hospitals. It also answers, for the Australian public-hospital context, the question posed by a recent US study examining the satisfaction level of dietitians (Sauer, 2009): what aspects of work do dietitians enjoy? The results of this study have led to the creation of the Five Sources of Value, which shows the five main sources of workplace value for NSW public-hospital and the relative importance of each source in the various career stages of the dietitian.

9.2 Professional Contribution

The contribution to professional practice was examined in detail in Chapter Eight. In summary, there were four areas of contribution:
• developing of a career-support program tailored to the different stages of the dietetic career;

• highlighting the identification of the need for greater attention to the concept of interdisciplinary health-care teams;

• identifying the need to improve the role identity of the hospital-based dietitian; and

• identifying the potential ways to streamline inefficient and ineffective work processes.

Managers within this work context the knowledge gained from this study to create a work environment that enhances both the retention and engagement of this workforce.

9.3 Limitations of This Research

There were several limitations to this study. In Chapter Four, the observational study was conducted across a small number of sites, (seven); therefore, the results cannot claim to be representative of the NSW public-hospital system. The convenience-sampling technique used to recruit participants may bias the results. This was a necessary restriction, as the observing staff were working in a sensitive area and hence only volunteer participants could be included to ensure that all the ethical issues were addressed. Also, the fact that this was an overt study may also have influenced the participants’ behaviour. The cross-sectional survey (Chapter Five) was voluntary; this may have skewed the result, as those feeling restricted in time or stressed may not have participated in the survey. This was offset to a degree by the response rate being more than 50%. Also, those staff members who were not well networked to a senior dietitian may not have been included. The
grounded-theory analysis of the in-depth interview study (Chapter Six) was a cross-sectional design. Using a longitudinal approach may enhance the findings. Moreover, the researcher may have unintentionally influenced the results, although this was considered in the analysis process. It should be noted that model developed would benefit from more research to further refine and test the robustness of these initial findings.

9.4 Future Research

As often is the case, the more one investigates an area, the more questions arise. The exploration into how NSW public-hospital dietitians felt about their workplace led to the development of the ‘Five Sources of Value’. This core category provided an explanation, but it also raised further questions that are worth exploring. Also this study used a grounded-theory approach in the analysis of the in-depth interviews; thus the model developed should be continually tested and refined to ensure its ongoing relevance to the area. The research uncovered a list of possible issues that would benefit from further research; some of these are included in the following sections.

9.4.1 Attraction, Retention and Engagement of Allied Health Staff

This work provides a baseline for further research into the attraction, retention and engagement of allied health staff within the public-hospital system. Many of the issues affecting dietitians also affect other allied health professions working within the same work context. The issues of workforce retention and full engagement become a strategic area of research given the predicted health-workforce shortages.
9.4.2 Development of Interdisciplinary Teams

This is an area worthy of further investigation, as it provides a viable solution for two of the major sources of value for dietitians: their ability to make a meaningful contribution to patient care and to be seen as an integral member of the health-care team. This research uncovered the limitations felt by many dietitians working in an unsupportive environment in terms of their ability to contribute to patient care. There appeared to be a lack of a well-functioning health-care team despite the concept of interdisciplinary teams being well accepted within the literature (Rafferty et al., 2001; Humphris & Hean, 2004; Drinka & Clark, 2000). This research indicates that more work is required to determine how well the NSW public-hospital system supports an interdisciplinary team culture. This may hold the key to the development of a highly functioning health service that accesses the full range of skills and expertise within its workforce.

9.4.3 Issues Facing the Part-Time Workforce

One of the intriguing results from the burnout survey was that part-time workers and workers with children had the lowest levels of burnout and highest level of personal accomplishment. This is fertile ground for further research into the engagement and management of the part-time workforce, yet little has been done despite dietetics being a female-dominated profession, with a sizeable proportion of the workforce being part-time. The facts are clear that the part-time workforce in health is growing (Australian Institute Health & Welfare Section 5.4). This growth may be due to a number of factors such as societal changes, industrial award entitlements, financial expectations and access to affordable childcare. This presents a challenge to managers, as the traditional service within the public-hospital system covers a minimum of five days a week, with some departments providing weekend coverage as well. The shared workloads between two or more staff
pose the issue of continuity of care for patient and time investment in information transfer. Also, access to staff education and communication forums has the potential to cause problems, as rostered days for part-time staff may not fall on the days of the staff meeting or continuing-education forums. It also raises a number of ethical issues with regards to how much an employer should compensate for the nature of part-time work in the area of education and communication. The pro-rata approach may not be a fair or practical method, as part-time workers must possess the same level of competency as their full-time counterparts. In practical terms this means an employee must invest more into the education and communication for part-time workers, as these activities represent fixed, not variable, costs.

9.4.4 General Applicability of the Five Sources of Value

Further work could be undertaken to test the wider applicability of the model developed in this study. Preliminary work investigating its generalisabilty showed promising results for a number of allied health professions. However, more work would be required to confirm these findings and extend them to other areas. Possible research questions could include:

- Does this model transcend professional boundaries?
- Is the work context the major factor driving how members of a profession view their workplace?

9.4.5 Managers Within the Public-Hospital System

This research showed that managers had amongst the highest levels of burnout. The in-depth interviews revealed that the biggest source of value was their self-belief. This is an area also worthy of further research, as these are critical leadership positions. How managers survive in a workplace can have flow-on effect for all their staff, and for their
discipline as a whole. Further investigation into these areas may assist in the development of strategies aimed at supporting this group; this in turn, can benefit the broader dietetic community. Also, research into other allied health professions to investigate whether they have experienced similar issues would be beneficial. Predicted workforce shortages mean there is merit in investigating ways to attract and retain high-calibre individuals for these leadership positions.

9.5 Conclusion

This thesis explored the relationship between dietitians and the NSW public-hospital system. It found that dietitians in this work environment sought value from five main areas:

- acquisition of knowledge;
- relationships with others;
- work culture;
- role clarity; and
- self-perception.

The relative importance of these values changed according to the career stage of the dietitian. The dietitians surveyed experienced similar levels of burnout to their Canadian counterparts (Gingras et al., 2010), and had average levels of burnout relative to other Australian health-care professions (Spooner-Lane & Patton, 2007; Scutter & Goold, 1995; Willcock et al., 2004). It also showed that the majority of tasks in the public-hospital system occur away from the patient, and that these were primarily concerned with the management of patient information and coordination of care.
A next logical step in this research would be to further explore elements uncovered within this body of work that will assist dietitians in shaping both their skills and the work context as they secure their place in the 21st-century public-hospital. The title of this thesis is ‘NSW Public-Hospital Dietitians and Their Workplace: True love or a marriage of convenience?’ It would appear most have based this relationship on true love. Yet, as with many marriages, the success of the union relies on an ongoing commitment, compromise and adaptation. Dietitians and NSW public hospitals are no exception.
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APPENDIX ONE

- Title: Burnout Survey Data

a) Participant Information Cover Sheet:

**Survey: NSW Public Hospital Dietitians Satisfaction Survey “. It’s all about you (IAAY)***

This is in an invitation to participate in a satisfaction survey that “is all about you” and how you feel about the work you do every day. It is an area of investigation that has been largely overlooked in the literature and this survey will be the first to measure how dietitians feel about working in the NSW public hospital system. This research has been approved by the Illawarra Shoalhaven local Hospital Network and University Wollongong ethics committee (HE11/082).

The survey consists of two sections;

The first section has questions about your individual characteristics.

The second section is a validated instrument designed to measure employees feel about their workplace.

This survey will take about 10-15 minutes to complete and is both voluntary and anonymous. I have included a stamped self addressed envelope for you to return on completion of the survey. It would be very much appreciated if you could return your survey to me by 6th May, 2011.

If you wish to contact me directly to discuss any aspect of the survey I am very keen to hear from you.

My contact details are:

Marianna Milosavljevic

0434640367 or email me directly on Marianna.milosavljevic@sesiahs.health.nsw.gov.au
### Section One: Individual Characteristics

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<td>Type of hospital (circle)</td>
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<td>Time spent in each of the work areas listed (your personal estimate is sufficient)</td>
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<td>Group Work:</td>
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<td>Other:</td>
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**b) Section Two: Burnout Tool**

*The purpose of this survey is to discover how various persons in the human services, or helping professionals view their job and the people with whom they work closely.*

Because persons in a wide variety of occupations will answer this survey, it uses the term *recipients* to refer to the people for whom you provide your service, care, treatment, or instruction. When answering this survey please think of these people as recipients of the service you provide, even though you may use another term in your work.
Instructions: On the following page are 22 statements of job-related feelings. Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, write the number “0” (zero) in the space before the statement. If you have had this feeling, indicate how often you feel it by writing the number (from 1 to 6) that best describes how frequently you feel that way. An example is shown below.

Definition of the ‘How often scale’.

0 = Never
1 = A few times a year
2 = Once a month or less
3 = A few times a month
4 = Once a week
5 = A few times a week
6 = Every day

Example Question:

1. ___________ I feel depressed at work.

If you never feel depressed at work, you would write the number “0” (zero) under the heading “How Often.” If you rarely feel depressed at work (a few times a year or less), you would write the number “1.” If your feelings of depression are fairly frequent (a few times a week but not daily), you would write the number “5.”

Some Examples of the Questions in the Burnout Tool:

• Question 1: I feel emotionally drained at work. (Emotional Exhaustion domain)

• Question 7: I deal very effectively with people (Personal Accomplishment domain)

• Question 8: I don’t really care what happens to some of my recipients (patients) (Depersonalisation domain)
Table: Collated Results of the Burnout Survey

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APPENDIX TWO

Title: GT Analysis Data

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Legend

1. Interested in Nutrition and health
2. Stimulation/Learning Curve
3. Relationship with patients and staff (internal and external)
4. Critical Attributes of a Dietitian (both negative and positive)
5. Teamwork (inter and intra departmental)
6. Value of the Dietetic Profession (within and without)
7. Empowerment of Others (source of enjoyment/satisfaction)
8. Leadership
9. Quality of Service (resources/problems)
10. Developing Dietetic Expertise (learning, self knowledge improvement)
11. Autonomy/Self Direction
12. Measure of Self Worth
13. Personal Satisfaction
14. Inadequacy of Training
15. Provides a career and lifestyle balance
16. Competitive Profession
17. Optimism
18. Structure/Process - systems
19. Ambivalence/slow recognition of profession - within and without
20. Dietetic effectiveness – difficulty/patient focussed
21. Culture - within workplace
22. Role Clarity

Part B: Summary of Sub categories, categories and core category of the GT analysis

Table 2: Sub categories, categories and a core category.

<table>
<thead>
<tr>
<th>Sub Categories (n=22)</th>
<th>Categories (n=5)</th>
<th>Core category (n=1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structure/process</td>
<td>Critical attributes</td>
<td></td>
</tr>
<tr>
<td>Interested in nutrition and health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>optimism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>empathy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empowerment of others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competitive profession</td>
<td>Role clarity</td>
<td>Role-clarity</td>
</tr>
<tr>
<td>------------------------</td>
<td>-------------</td>
<td>--------------</td>
</tr>
<tr>
<td></td>
<td>Ambivalence/slow recognition of the profession</td>
<td>-scope</td>
</tr>
<tr>
<td></td>
<td>Inadequacy of training</td>
<td>-training</td>
</tr>
<tr>
<td></td>
<td>Dietetic effectiveness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Measure of worth</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teamwork</th>
<th>Relationship with patients and staff (internal and external)</th>
<th>Relationships</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Personal satisfaction</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Leadership</th>
<th>Quality of service</th>
<th>Culture</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Value of the dietetic profession</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Career lifestyle balance</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stimulation/learning curve</th>
<th>Developing dietetic expertise</th>
<th>Knowledge</th>
</tr>
</thead>
</table>
APPENDIX THREE

Title: Presentation Findings

All groups were presented with a detailed description of the study and the findings in their entirety. They were also given an overview of the GT approach and some additional background of qualitative methods in health.

Table 1: FEEDBACK FROM THE ALLIED HEALTH GROUPS

<p>| Date      | Profession and Sites          | No. Participants | No. Research subjects | Career stages Represented | Summary Feedback                                                                                                                                 |
|-----------|-------------------------------|------------------|------------------------|----------------------------|----------------------------------------------------------------........................................................................................................|
| 29/8/11   | Dietitians—Tertiary Teaching) | 4                | 4                      | All                        | Made sense and could related to the findings. Interested in the different workplace cultures and how this affected the staff. |
| 31/8/11   | Dietitian Manager—Tertiary    | 1                | 1                      | Manager                    | Concerned about the negative finding for level 2 and unrest amongst this group. Felt managers also looked for value from their relationships more than results indicated. |
| 31/8/11   | Dietitian Manager—Specialist centre | 1          | 1                      | Manager                    | Felt results fit their experience to date.                                                                                                                                                                             |
| 5/7/11    | Dietitians—Regional Referral Centre | 4          | 3                      | All levels                 | Identified strongly with the data particularly the frustration with the medical dominance issue and lack of status/recognition of the profession and need for strong leadership and culture of support |</p>
<table>
<thead>
<tr>
<th>Date</th>
<th>Profession</th>
<th>Level</th>
<th>Experience</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/7/11</td>
<td>Dietitians—Major Metropolitan Dietitians</td>
<td>8</td>
<td>4</td>
<td>Level 1,2 and specialists Felt the findings reinforce their experiences and spoke of more examples of how these were similar to their own experiences.</td>
</tr>
<tr>
<td>19/9/12</td>
<td>Physiotherapists—Regional and Rural</td>
<td>30</td>
<td>0</td>
<td>All levels (Including 3 students) Felt it made sense and gave examples of when they have experienced similar situations as the respondents in the interviews.</td>
</tr>
<tr>
<td>11/10/11</td>
<td>Physiotherapists—Major regional referral</td>
<td>18</td>
<td>0</td>
<td>All levels (including 4 students) Very positive response. Saw many similarities between the 2 professions. Gave lots examples of how doctors don’t know their roles and their frustration with the system lack of recognition less time with patients. Some difference noted in age and experience and personality in terms of how they reacted to doctors. Turnover after first 2 years into private practice or post grad medicine.</td>
</tr>
<tr>
<td>14/10/11</td>
<td>Occupational Therapists—Major Regional Referral</td>
<td>9</td>
<td>0</td>
<td>All levels Resonated but lots discussion around the role recognition for PT. OT have a broader range of options for work so will readily leave the public hospital system and work in private organisation in other areas. The new grad OTs agreed most strongly with the findings.</td>
</tr>
<tr>
<td>17/10/11</td>
<td>Physiotherapists—</td>
<td>12</td>
<td>0</td>
<td>All levels plus 1 student Agreed Value was central to job fulfillment and engagement BUT noted</td>
</tr>
</tbody>
</table>
Rehabilitation site

<table>
<thead>
<tr>
<th>Date</th>
<th>Location Description</th>
<th>Participants</th>
<th>Level</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>20/10/11</td>
<td>Speech Pathologist—Rural, Regional and Major referral centre</td>
<td>19</td>
<td>0</td>
<td>Very powerful resonance amongst this group. All levels could tell a story of similar incidents and the rural counterparts find striking similarities with dietitians. A number of staff approached the researcher after this session to discuss the relevance of these findings to their experiences. One even said “it was like you interviewed me”.</td>
</tr>
<tr>
<td>27/10/11</td>
<td>Tertiary teaching hospital</td>
<td>11</td>
<td>3</td>
<td>Very string resonance with this group- particularly in the area of medical dominance and lack of role recognition and status. Specialist would see the issues but felt strongly learning the Dr’s lingo was the way to advance the profession.</td>
</tr>
<tr>
<td>31/10/2011</td>
<td>Allied health Directors (across NSW)</td>
<td>9</td>
<td>0</td>
<td>All allied health manager have an allied health training in one of the disciplines- they found the changed over the career stages fit with their experiences and the manager with a dietetic background described the attributes of a typical dietitian prior to hearing the study’s findings- they</td>
</tr>
</tbody>
</table>
were the same. Strong match with their experiences to date. Also agreed managers most of their values is self-determined as there is little to no feedback within the system.

<table>
<thead>
<tr>
<th>Total</th>
<th>11 Groups</th>
<th>126 AHP</th>
<th>16 Research Subjects</th>
<th>All levels represented</th>
<th>Differences noted between OT and rest</th>
<th>Also Hospital type important.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4 Professions surveyed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>9 sites across NSW</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

215
The StepUp program has been developed in order to provide staff within the ISLHN Department of Clinical Nutrition a structured approach for up-skilling by providing opportunities for ongoing personal and professional development. The step up program comprises
1. Clinical peer support program (CPSP)
2. Stepping up.

The CPSP provides new staff members with the opportunity for supportive one-to-one communication with an experienced department member. New staff employed by the Nutrition Department will be partnered with an experienced practitioner. This individual will not be the immediate site supervisor/team leader in order to ensure that the roles of supervisor and support remain delineated.

This program provides three streams for staff members:

- new graduate practitioners (within first 12 months after graduation)
- individuals with previous dietetic experience greater than 12 months (clinical or otherwise)
- experienced practitioners who require ongoing support

The aims of the CPSP program are:

- to continually improve the quality of service provision,
- to foster professional development and integration into the clinical team,
- to support staff as they address their daily work commitments,
- to provide a forum for staff members to debrief.
SECOND STEP: Stepping UP

The rationale of this component is to:

- To assist the staff member to progress toward personal regrades and additional responsibility.
- Provides a framework for clinicians to be formally assessed in areas that will enhance their skills and proficiency.
- To provide a framework that outlines the work expectation levels for all levels within the Health Professionals Award.

The goals of the program are:

- To provide the individual clinician key performance indicators (KPIs) related to the core competencies that are required to be formally assessed for regrading to level 3 and level 4.
- Provide a supportive pathway to assist clinicians to achieve their KPI’s.

CORE COMPETENCIES

According to the Health Professionals Award, dietitians wishing to be considered for level three or four personal regrades need to demonstrate they address the following competency areas:

1. Experience & knowledge and applicability of this to the workplace
2. Provision of supervision and education to staff
3. Active role in Quality Activities
4. Research Achievements

MODULES

These 4 competency areas have been expanded to 7 modules to include teaching, mentoring and service planning. Each module contains at least one and sometime several KPIs which must be demonstrated in order to accrue points towards eligibility for a regrade.

Module 1: Clinical Experience

- Relates to competency 1 above.

Module 2: Professional Support/mentoring

- Relates to competency 2 above.

Module 3: Student Supervision
• Relates to competency 2 above.

Module 4: Quality Activities

• Relates to competency 3 above.

Module 5: Research

• Relates to competency 4 above.

Module 6: Teaching and training

• Relates to competency 2 above.

Module 7: Service Planning

• Relates to competency 1 above.