Patients, carers and nurses: collaborators in development of a new model of nursing care for older persons in the acute care setting

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THESIS CERTIFICATION

I, *Louise Dolores Hickman*, declare that this Thesis, submitted in fulfillment of the requirements for the award of Doctor of Philosophy, in the School of Nursing, College of Social & Health Sciences, University of Western Sydney, is wholly my own work unless otherwise referenced or acknowledged. This document has not been submitted, either wholly or in part, to any other educational institution.

DEDICATED TO MY FAMILY:

To my husband John you have been my constant support and companion on this journey of growth. To my daughter Charlotte, who arrived half way through this journey you are my ever present light and balance. To Jack, my final burst of inspiration is because of you and the added joy you have brought to my life

"Other things may change, but we start and end with family." *Anthony Brandt*

And

To my parents Tom and Aileen whose faith in me has been steadfast underscored by the sacrifices they made to provide me all the opportunities they could

"I was lucky to be brought up loved. Not that everything I did was liked, but I knew that I was loved-and knowing this gave me the ability and freedom to be who I wanted to be" *Bernie Siegal*

To my siblings Brendan, Kieran, Peter, Gerard, Simon and Siobhan thank you all for the ways you each continue to inspire me, making me the person I am today.

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"*Those who believe in our ability do more than stimulate us. They create for us an atmosphere in which it becomes easier to succeed*"

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Long journeys end only in greater beginnings.

ABSTRACT

Globally the population is ageing and as a consequence people are living longer with multiple chronic conditions. A range of factors, including decreased lengths of hospital stay and a greater focus on community based care, has lead to an increasing acuity of patients admitted to acute care settings, many with complex care needs. To date, models of nursing care in acute settings have been configured to focus on acute, procedural care and do not meet the unique needs of the older person. In order to ensure optimal health outcomes of older hospitalised people, nursing care needs to be responsive to the priorities and needs of patients and their families. This study sought to collaboratively develop a model of nursing care with nurse clinicians to improve the care of older people in the acute care setting. Model development was driven by an action research framework, using evidence-based principles and a comprehensive needs assessment.

A three phased, mixed method design was embedded within the overarching conceptual and philosophical framework of action research. The first phase of the study comprised a needs assessment and allowed appraisal of the needs of patients as perceived by patients, carer's and nurses, this was performed using the Caring Activity Scale [CAS][(1)]. Qualitative data and semi-structured interviews added depth to the survey data and qualified responses by confirming that patients thought that nurses did the best they could within a culture of busyness, while patients strived to maintain and sustain their own independence. Managing the discharge process and carer burden arose mainly from the carer semi-structured interviews only. Data revealed significant differences between patients, carer's and nurses in relation to

priority and satisfaction with care. Patients did not place a large importance on discharge care which contrasted with the focus of nursing initiatives. During the subsequent phases of the study a collaborative approach, using action research principles, was used to develop and implement a model of nursing care. A key feature of this model was the introduction of a team structure with a focus on patient-centred care. Significant differences were identified in the pre model and post model patient groups in relation to satisfaction with care, with the post model group more satisfied than the pre group model group. Further, improvements in functional status and medication knowledge were demonstrated among patients cared for under the new model.

This study has demonstrated that developing a model of care appropriate to the needs of patients, carer's and nurses can be achieved through the use of action research principles. Study data illustrates the importance of collaboration, empowerment and change management principles in driving clinical improvement and patient satisfaction with care. The findings also underscore the importance of promoting and educating patients and carers as well as nurses about the importance of discharge planning to optimise post-discharge health outcomes.

ANTHOLOGY OF PUBLICATIONS

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Title/Journal/Book	Status
Davidson PM, Halcomb E, **Hickman L**, Phillips J, Graham E. Beyond the Rhetoric: what do we mean by a model of care? *Australian Journal of Advanced Nursing* 2006; 23(3):47-55.	Published
Chang E, Hancock K, H**ickman L**, Glasson, J, Davidson P. Improved outcomes in acutely ill older hospitalised patients following the implementation of a model of care. *International Journal of Nursing Studies* 2007; 44(7)	Published
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PEER REVIEWED CONFERENCE & POSTER PRESENTATIONS

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Hickman L, Chang E, Davidson PM, International Congress of Women's Health, November 2006.	Sydney
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ABBREVIATIONS

Abbreviation	Full Term
α	Alpha value
ABS	Australian Bureau of Statistics
ACE	Acute Care Elderly
ARC	Australian Research Council
ADL	Activities of Daily Living
CAS	Caregivers Activity Scale
CDP	Comprehensive Discharge-Planning Model
CHF	Congestive Heart Failure
CI	Confidence Interval
CNC	Clinical Nurse Consultant
DON	Director of Nursing
ED	Emergency Department
GNS	Geriatric Nurse Specialist
GP	General Practitioner
GRN	Geriatric Resource Nurse Model
ICU	Intensive Care Unit
MMSE	Mini-Mental State Examination
NE	Nurse Educator
NHMRC	National Health and Medical Research Council
NICHE	Nurses Improving Care to the Hospitalised Elderly project
NUM	Nurse Unit Manager
NSW	New South Wales
p	Pearson's Co-efficient
QI	Quality Improvement
RCT	Randomised Controlled Trial
RN	Registered Nurse
RR	Relative Risk
SD	Standard Deviation
SF-36	Short Form - 36 General Health Survey
SWP	Strategic Working Party
UTI	Urinary Tract Infection
WHO	World Health Organization

GLOSSARY

Chronic Illness	An illness with a trajectory lasting more than 3 months[2].
Enrolled Nurse	Also known as Registered Nurse Division 2 in Victoria. A person who has undertaken a program of approximately twelve months at either Diploma or Certificate IV level (usually in a College of Technical and Further Education) and is licensed under an Australian State / Territory Nurses Act to provide nursing care under the supervision of a Registered Nurse (Registered Nurse Division 1)[3].
Heart Failure	Chronic heart failure is a condition related to structural defects or cardiac dysfunction wherein the ventricles' ability to adequately pump blood is impaired. It is a syndrome that can occur at rest or on exertion and is progressive in nature[4].
Intermediate EN	A term used within the context of the acute aged care ward of this study only, Intermediate Enrolled Nurses are ENs that work within the nursing team however have no formal expertise neither are they considered by the team to be novices.
Intermediate RN	A term used within the context of the acute aged care ward of this study only, Intermediate Registered Nurses are RNs that work within the nursing team however have no formal expertise neither are they considered by the team to be novices.
Methodology	The approach utilized by the researchers' to engage a systematic inquiry based on the assumptions of their research paradigm[5].
Registered Nurse	Also known as Registered Nurse Division 1 in Victoria, A person who has undertaken a basic education program of not less than three years (now in universities) and is licensed to practice nursing under an Australian State / Territory Nurses Act[6].
Research Method	The research method is "the steps, procedures, and strategies for gathering and analyzing data"(p. 504)[7].

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Chapter One
Care of the older person in the acute care hospital setting: Implications for nursing

1.1 Introduction

This thesis describes the planning, implementation and evaluation of an action research project for developing a model of nursing care for older people in an acute aged care hospital setting [INHospital Study]. The INHospital Study was undertaken as a discrete arm of a larger Australian Research Council Linkage Project (LP0233827). I received a postgraduate research scholarship to undertake and develop a collaborative model of nursing care for improving the nursing care of older people (INHospital). This distinct arm included completing Phase One, and commencing, implementing and completing Phases Two and Three of the INHospital Study within the acute aged care setting.

For the purposes of the INHospital Study, an older person is defined as an individual older than 65 years. For the purpose of this thesis and as defined by New South Wales [NSW] Health, an

"aged care client refers to those older people and their carers who used acute aged care services. It does not include everyone older than 65 years of age; that is the definition is not age-specific... The definition recognises the critical importance of families and carers"[1, p 47].

The acute aged care hospital setting is defined as a specific ward which specialises in the care of older people. It is structured to provide a safe environment for patients, and inpatient beds are directly under the care of a geriatrician and team. A range of factors impact on the quality and safety of care of older people in the acute aged care settings including: models of care geared towards procedures and acute illnesses[1]; a high risk environment for iatrogenic complications[2, 3]; a health workforce not prepared sufficiently to meet the needs of older people[4, 5]; health workforce shortages and a range of social, economic and political factors impacting on ageing itself[6]. Striving to improve the care of older people in acute aged care hospital settings is a health priority internationally and nationally and is a strategic concern for the nursing profession[7].

Three key processes have underpinned this study: (1) the importance of a comprehensive needs assessment[8-10]; (2) the value of empirically derived evidence-based nursing interventions to improve health-related outcomes[11, 12]; and (3) the utility of an action research framework to drive practice change and clinical improvement[13, 14].

A range of contextual issues have informed the INHospital Study. These include population ageing[15]; policy directives to address ageing[16, 17]; models of nursing care development[18, 19]; differences in patient, carer and nurse priorities and satisfaction with care[9, 20]; and the use of action research for clinical practice improvement[14, 21]. Key factors relating to these issues are summarised in this chapter and in Chapter Two. Evidence-based interventions are identified as being

strategic drivers in improving the quality of nursing care[22], and a review of published evidenced-based studies is presented in Chapter Three. Australia has a system of universal health care coverage and therefore in order to fully appreciate the issues impacting on the ward level, it is important to understand the policy issues driving the care of older people.

1.2 Health approaches to population ageing

The term 'ageing' pertains to the organic process of growing older, largely from a failure of body cells to function normally or to produce new body cells[23]. A consequence of population ageing is that people are living longer with multiple chronic conditions[16]. In spite of these biological processes, ageing is not a negative process; there are challenges faced by changing demographics, although there are also many opportunities[7, 24, 25]. In order to maintain a process of healthy ageing, older people often have particular requirements in respect of social, physical and psychological needs[26]. Although older people are often portrayed as a burden, they offer many opportunities to communities by remaining active and continuing to contribute to society in a productive and positive way[27].

The World Health Organization [WHO][28] recognises the ever-increasing relative number of older people as a phenomenon called 'population ageing'. Population ageing in developed countries is occurring at a time of declining fertility, higher living standards and advances in medicine and health promotion[19, 29, 30]. Consequently population ageing is placing increased demands on health care systems internationally and nationally. Australia, in parallel with many developed countries, faces what some believe to be a health care crisis as the population ages and the burden of chronic disease grows[30-32].

The pressure on health resources, across all sectors as a result of population ageing and chronic care needs, impacts directly on the quality of care that the older person can expect to receive during a hospital episode[33, 34]. It is widely publicised that there is increasing pressure in the acute care sector in regards to funding, staffing and access to adequate resources for appropriate care[33]. It is also well documented that in the current health care climate, older people have concerns about the quality of care they receive and this has been expressed through the media[4, 29, 35]. Older patients report low satisfaction and believe they are not receiving adequate care[34-36]. This is compounded by the fact that Australian aged care providers are at a crossroads with new policy initiatives and models of change, as they are finding that policies are not being developed in any universally agreed forms, nor seriously evaluated[37].

In Australia, a considerable focus is placed on the older person in hospital, largely due to the perception of the burden of ageing on the health care system[38]. Technological advances and the increasing burden of chronic conditions mean that the older person is frequently hospitalised not only for therapeutic interventions, but also diagnostic and assessment reasons[3, 7]. A range of factors include decreased lengths of hospital stay and a greater focus on community-based care. This has led to increasing acuity of patients admitted to acute care settings, many with complex care needs.

This observation does not solely pertain to older people, but it is often amplified in this age group. For example, heart failure is a common reason for hospitalisation and the majority admitted are older patients[39, 40]. There is also an increased need and sense of vulnerability for older people during periods of illness. In these situations an

individualised needs assessment is required so that nurses can tailor a model of care to the needs of the older person[41]. These issues challenge the nature and scope of nursing practice, and as a consequence, models of nursing care.

Due to the demographic shift associated with the ageing of Australia's population there is a need to review models of health care delivery to ensure healthy ageing and positive health outcomes. The INHospital Study aims to inform a model of nursing care through the dynamic and collaborative action research process. While models of nursing care are affected by the external broader health context, nurses can modify care delivery by taking into consideration the broader context to improve health outcomes. Controversy exists in respect of definitions of models of care[42] and this is discussed in further detail in Chapter Two. This chapter provides the context to creating such a model of nursing care for the INHospital Study. This chapter also outlines the changing face of Australian society, and the implications for health care providers. In addition, it identifies existing literature that supports the need for research in this area, and thus the justification of the INHospital Study.

1.3 Problem statement

The ageing of the Australian population is well documented[17, 32, 43]. There is a lack of Australian research on models of nursing care for older hospital patients. Nursing care is pivotal to supporting older people to maintain or regain their health and well-being during a hospital episode[10, 44, 45]. Not only is there an increase in older patient throughput and acuity, the complexity of care required for older people is compounded by polypharmacy and increasing levels of co-morbid conditions, including cognitive impairment[17, 46]. This underscores the importance of configuring evidence-based nursing care delivery to be responsive to the needs of older people

within the social, political and economic context of the contemporary health care system.

1.4 Statistics and trends for the ageing population

Australian data indicate that the population of older people is increasing[7, 32]. Australians are living longer than ever before, therefore the number of older people is increasing as a proportion of the total population[32]. Figure 1.1 shows a projection by the Australian Bureau of Statistics [ABS] of the population age structure in Australia. In 2006 the ageing population numbered 2.7 million people aged 65+ years (13.3% of the total population), which is expected to increase to between 7.2 million and 9.7 million by 2056 (between 26.4% and 29.1% of the total population)[7].

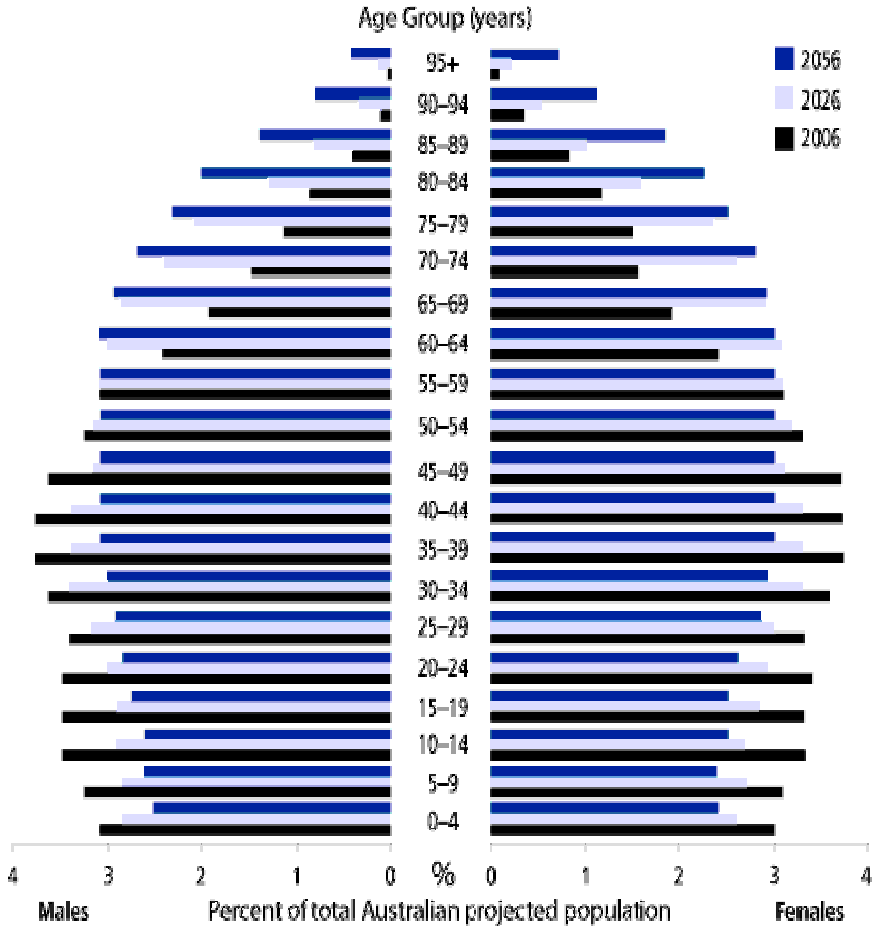

FIGURE 1.1 Australian projected population age structures

Source: Australian Department of Health and Ageing. (2006). *Department of Health and Ageing Factbook 2006*. Canberra: Commonwealth of Australia

Baby boomers are the cause of the large increase in the 65+ years age group in comparison to the population increase in the over-80-years age group, which is a result of improved life expectancy[(24)]. There is debate as to whether older people can be categorised chronologically and categorically as the needs of people vary across some 20 or so years of life. There can be value in looking at different age groups to identify potential differences within the older population. However, caution should be applied to chronological definitions of ageing because of the risk of stereotypes and stigmatisation. The needs of older people can vary depending on the nature of the investigation. For example, as described in McCormack[(38)], hospital utilisations

for the young-old (65-74 years), old-old (75-84 years) and very-old (85+ years) are different. Swerissen and Duckett[47] claim that Australians over the age of 65 years use approximately four times the health resources per person than those under 15 years, peaking between 80-90 years. Of importance is that the severity of illness in the older hospitalised patient increases directly with age[38], therefore the older the hospitalised patient, the sicker they tend to be.

1.4.1 Gender differences in ageing

The ageing population also presents a disparity between genders. In 2004 people over 65 years old made up 13% of the population, with a notably higher proportion of women (495,100) than men (394,400). This disparity increases with age, were women account for roughly two-thirds (69%) of the population in the 85+ years age group[32], in contrast to the whole population. Although there is a gender disparity, interestingly McCormack[38] reported that in Australia, older men have more hospital separations than older women in the acute hospital system (625 per 1,000 for females, and 826 for males aged 65 years or more). This is often due to the fact that older women tend to live in residential aged care in comparison to older men who live in the community[38].

1.5 Clinical practice improvement

Lowe and Kasap[48] claim that frequently there is little use made of scientific evaluation when changes occur in health care. They argue that while change appears superficially to meet identified needs, the outcomes may be more relevant to the economic and political imperatives of State or Commonwealth government ministers than to health care providers. To ensure that change benefits older people in hospital it is important that all key stakeholders, including staff and health consumers,

collaborate with management when decisions are made about the future of health and the reorganisation of health care services. Involving key stakeholders and exploring the context of health situations from broader perspectives aligns with two of the main concerns of sociology.

> "The first is the capacity to take an individual situation and place it within the context of the wider society and the second is the ability to view any situation from a variety of theoretical perspectives, or ways of seeing"[26,p16].

Any change to health care systems should be based on good evidence; research is important to gain this evidence and needs to be fostered when looking at organisational design and improved quality of patient care[48, 49].

Engagement and empowerment have been critical principles of action research in clinical practice improvement, even though the INHospital Study used mixed methods to prospectively undertake a series of quantitative and qualitative studies to derive new knowledge. Implicit within the INHospital Study was the aim of improving health-related outcomes. This encompassed principles such as leadership and working collaboratively within organisational culture to achieve clinical practice improvement strategies[11]. Two essential components to quality nursing care and clinical improvement are patient preferences and clinical experience[12]. Inherent in the method of the INHospital Study is identifying older people's preferences, and the clinical experience and involvement of nurses using the principles of action research.

1.6 Study design

As outlined above, the INHospital Study was embedded within an overarching conceptual and philosophical framework of action research. A three-phased, mixed method design was used in the INHospital Study so I could collaborate with nurse

clinicians to develop a model of nursing care informed through evidence-based principles to improve the care of older people in the acute care setting.

The research processes are summarised in Table 1-1. The reporting of methods and processes in a modular manner is not intended to detract from the cyclical, iterative nature of the action research process represented in Figure 1.2 but rather to provide the reader with greater clarity.

TABLE 1-1 Action research cycles and study method Phase One, Two and Three

Phase	AR Cycle	Rationale and Description	Methods
One	***Cycle 1*** ***Cycle 2***	Employing the action research framework. Undertaking a systematic, multifaceted needs assessment of older patients, their carers and nursing clinicians in an acute aged care setting.	Action research processes Literature review Survey Semi-structured interviews
Two	***Cycle 3*** ***Cycle 4***	Use of action research framework to develop and test the model of nursing care underpinned by Phase One findings.	Action research processes Field notes Survey
Three	***Cycle 5*** ***Cycle 6***	Evaluation of methods used with action research cycles 3-6.	Action research processes Survey evaluation Field notes

1.7 Aims

The aims of this three-phased study were to:

1. Undertake a systematic, multifaceted needs assessment of older patients, their carers and the nursing clinicians in acute aged care settings;

2. Compare satisfaction with, and importance of, nursing care between patients, their carers and nursing staff; and

3. Develop, implement and evaluate a model of nursing care in an acute aged care setting, using an action research process.

1.7.1 Action research cycles

For ease of reading and simplicity of reporting, the model of nursing care development and findings are presented as six separate action research cycles within three study phases. See Figure 1.2 below for a breakdown of the six action research cycles in the INHospital Study's framework.

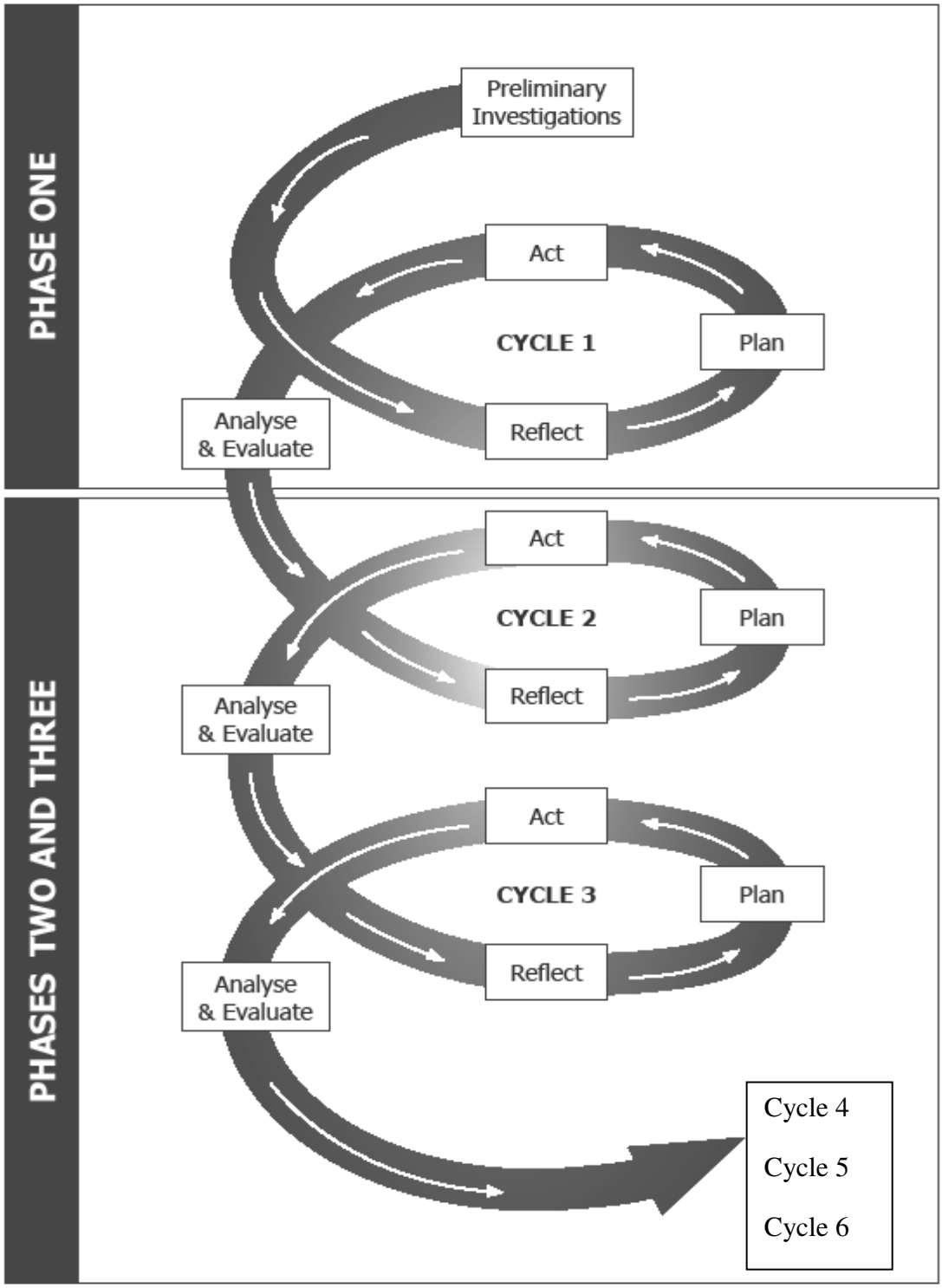

FIGURE 1.2 Action research cycles for the INHospital Study

Briefly, Phase One of the INHospital Study represents the initial action research process. This was a diagnostic phase which included planning and determining the

study setting. Phase One also incorporated a review of care priorities and assessment of levels of satisfaction with care provision. Phases Two and Three of the INHospital Study report on the development and implementation of a collaborative nursing model using action research.

1.8 Significance of the INHospital Study to nursing health care

The increasing number of older people in hospital and the paucity of evidence-based models underscore the importance of developing tailored models of nursing care. The utility of action research in driving practice improvement emphasising collaboration, empowerment and knowledge implementation is acknowledged in improving care delivery.

1.9 Position of the researcher in the action research process

The position of the researcher in the action research process is important because of the influence the researcher can have within the action research process. Due to the flexibility and broadness of action research it is important that the researcher defines their position within the action research spectrum and with the research participants. As a health care professional and educator, the researcher's role, in the INHospital Study, was that of a facilitator. The INHospital Study utilised action research to help facilitate change within acute aged care. It was thus essential that participants understood the researcher's position role and boundaries.

1.9.1 Background of the researcher

As a health care provider, educator and neophyte researcher I recognise the significance of my gender, cultural beliefs and values, and the impact these may have on others, and this process aims to provide cultural sensitivity to help minimise

researcher bias[50]. I completed my nursing degree in New Zealand where cultural safety is built into the curriculum.

The concept of cultural safety is broad and includes not only ethnicity but also social, religious and gender groups[51]. "Culture refers to the beliefs and practices common to any particular group of people"[51, pg1]. Many aspects of action research such as power, politics and gender have synergy with the concept of cultural safety. The congruence of action research with the researcher's personality is important as the researcher's position, assumptions and potential bias can influence their facilitation role. I value and respect the older person and the nurses caring for the older person and am aware of how these older people and the nurses caring for them are vulnerable population groups. Action research changes the power structure through empowering participants throughout the research process; action research uses collegial and collaborative group processes, and quality improvement initiatives that affect and sustain practice changes[14, 21].

1.10 Thesis structure

This thesis is divided into seven chapters as follows:

Chapter One introduces the background, study design and aims of the INHospital Study.

Chapter Two discusses the current literature regarding contextual issues such as policy directives to address ageing, models of nursing care development and differences in patient, carer and nurse priorities and satisfaction with care of the older person in hospital.

Chapter Three presents a literature review that describes the importance of using evidence-based strategies in a model of nursing care development.

Chapter Four describes conceptual issues related to the INHospital Study and generic methodological issues related to Phases One, Two and Three of the INHospital Study.

Chapter Five describes Phase One of the INHospital Study, concerned with needs assessment; this involved the first two action research cycles: Cycle One setting the scene and Cycle Two scoping the problem.

Chapter Six describes Phases Two and Three of the study. This includes four action research cycles consisting of planning, developing and implementing a negotiated model of nursing care.

Chapter Seven describes the discussion of the INHospital Study, the strengths and limitations of the INHospital Study design, the implications of the INHospital Study for nursing practice, and the evaluation and sustainability of change of the INHospital Model of nursing care.

1.11 Summary

This chapter provides the background to the INHospital Study, an overview of the study design, its aims and significance to nursing practice and clinical practice improvement. This chapter highlights the current challenges and opportunities of population ageing. Current policy issues and initiatives that inform practice have been specifically identified as a lack of preparation of nursing staff to meet older

patients' unique needs. Chapter Two discusses current literature regarding policy issues for care of the older person in hospital.

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Chapter Two
Models of nursing care: implications for care of the older person in hospital

2.1 Introduction

Chapter One has outlined the challenges and opportunities associated with population ageing and discussed the aims of the INHospital Study. This chapter examines issues relating to models of nursing care and nursing issues impacting on the care of older people.

2.2 Positive public policy addressing ageing

Population ageing is a situation calling for urgent action on several fronts. This urgency arises from the inevitable strain that the increased proportion of older people will likely place on society, governments, non-government sectors, policy makers, communities, families, health care systems, hospitals, staff and, most importantly, on the achievement of good health outcomes for older patients[(1)]. The sociological approach to health places individuals within the context of the wider society by

taking into account different influencing factors such as community supports, political and economic influences and social factors that impose on the health outcomes of the individual[2]. It also acknowledges the contributions of these individuals to their families, communities and economies[3]. In order to develop models of nursing care it is important to consider the policy context within which health care is developed. The policy context internationally, nationally and within NSW where the INHospital Study was conducted is discussed below.

2.2.1 The international perspective: the World Health Organization

In 1991 the United Nations released a policy statement outlining *Principles for Older People*. This policy endorses a framework of healthy ageing whereby all older people have access to independence, participation, care, self-fulfilment and dignity, and the highest possible level of physical, social and mental functioning as they age[3]. The Global Movement for Active Ageing initiative recognises that models of best practice are needed to ensure the well-being of older people in the health system[1]. This policy framework aims to inform discussion, formulate action plans, encourage health and active ageing while recognising that active ageing depends on a range of influences or determinants that encircle individuals, families and nations[1].

2.2.2 Positive policy for chronic conditions

Positive policy for chronic conditions is essential to facilitate the implementation of changes across the health care spectrum. Chronic conditions can be defined as conditions which develop slowly and persist for a long period of time, often the remainder of the lifetime of the individual[4]. As illustrated below in the WHO Chronic Care Framework[5] (Figure 2.1), positive policy environments and links between the community and health care organisations are critical factors to support

chronic care delivery models. Care of the acutely ill older person needs to be considered within the framework of chronic conditions.

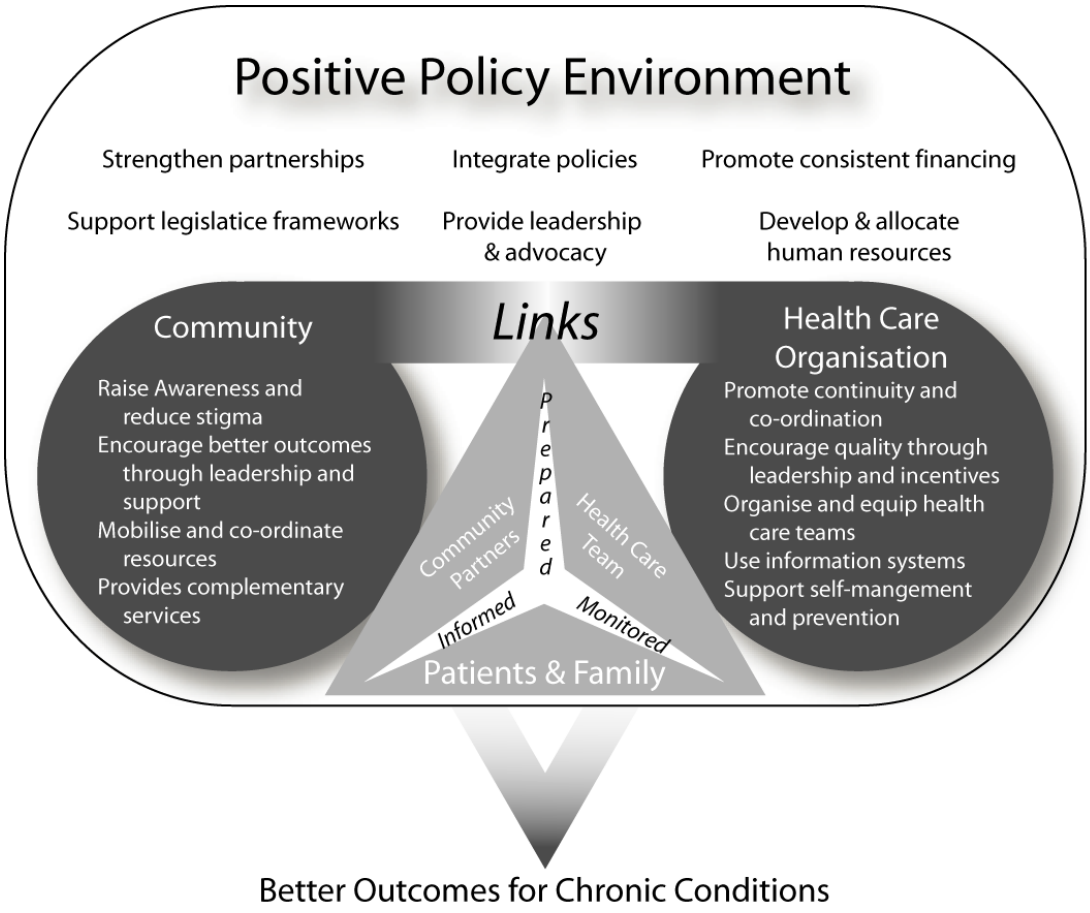

FIGURE 2.1 Innovative Care for Chronic Conditions Framework

Source: World Health Organization. (2002). Building blocks for action innovative care for chronic conditions: Global report. World Health Organization.

2.2.3 The national perspective: Australia

The national strategy for an ageing Australia supports a system of universal health coverage promoting access and equity in respect of health care services. In the Australian population, chronic illness accounts for 70% of the burden of illness and injury, and this burden increases with age. For those aged over 65 years, cancers and cardiovascular diseases account for 60% of the disease burden[(6)] and this is expected

to increase to 80% in Australia[7]. These diseases and respiratory illness are the main causes of death for both men and women over the age of 65 years.

Rather than focussing on these specific conditions and risk factors independently, we need to prevent and manage these chronic conditions in a planned collaborative approach to support health as people age[6]. In Australia the challenge is how to achieve this ideal in favour of the increasing ageing population. Health care services need to be configured to meet the needs of these older Australians within the acute care hospital environment. Some of the essential services that need improving are discharge services as older Australians need to be prepared for discharge so that they can manage their chronic illness and live a satisfying life back in the community[8].

Those working in acute care need to understand the chronic care initiatives as this will enable collaboration between aged and acute aged care services. For example, those patients unable to return home, due to their care needs being in excess of community services, will require admission to residential aged care. Ensuring that this occurs in a timely and appropriate manner requires close collaboration. Acute care services are not configured to meet the care needs of older people requiring permanent care yet often older people remain in this setting due to the restrictions on the number of residential aged care places[9].

'Ageing in place', contributes to this situation impacting adversely on acute health care systems and older people awaiting placement. It also challenges acute care providers to reconsider the manner in which they deliver care to older people in this situation. NSW Health[10] has responded with the clinical service frameworks. The clinical service framework is part of the action plan for health, which aims to improve health care delivery, address chronic and complex diseases and their

associated risk factors (including diabetes) through the promotion of best practice. Given that the chronic disease burden for the 65+ years age group in Australia is anticipated to reach 80% in Australia, the need to strengthen capacity across all sectors of health care in the management of chronic conditions is paramount to the improvement of older patient outcomes[7].

Within the current climate of health and scarcity of resources, the importance of evidence to inform decisions is increasing in the development and formulation of health policy,[11] although the reality is multifaceted health policy making is a politicised environment complex[12] with many challenges that continually need to be addressed. In relation to acute aged care one of the purposes of the National Strategy for Ageing is to meet the growing demand for accessible, appropriate and high quality health and aged care services[6].

Ogden et al.[13] state that top-down internationally driven policy changes may lead to apparent policy transfer, but not necessarily to successfully implemented programmes. This needs to be carefully considered in the continuing evaluation of the successes and failures of this National Strategy for Ageing. Walt[14, 15] and Sabatier[16] also discuss barriers of a top-down approach because in reality there is repeatedly separation between policy formulation and implementation. Often there is little concentration on the links between policy and practice, or how a top down approach will be interpreted or established at a local level. Sabatier[16, p 273] has examined the top-down approach and acknowledged that a range of variables such as political, legal and tractability can affect the different phases of the implementation process. Sabatier[16] believes that taking these variables into consideration will aid in

effective implementation. Walt[14] concludes that two main issues need to be considered in regards to effective policy implementation.

> "First, implementation cannot be seen as part of a linear or sequential policy process, in which political dialogue takes place at the policy formulation stage, and implementation is undertaken by administrators or managers. It is a complex, interactive process, in which implementers themselves may affect the way policy is executed, and are active in formulating change and innovation".

Secondly, Walt[14] discusses how to prevent the disparity between formulation of policy and implementation, by suggesting the involvement of all policy makers in policy analysis, including the development of strategies for implementation. These strategies should foresee aspects of policy from different levels such as management, technical, financial, public and government bureaucracy.

2.2.4 The local perspective: New South Wales State Policy

In Australia, hospitals are administered by the State health care system and therefore it is important to consider these factors in the context of the INHospital Study. Aligning with national strategies, the NSW Government has an action plan which addresses a number of areas within healthcare, including chronic and complex care programs across the health care spectrum, including acute care[10, 17-21]. NSW Health has identified one of the major concerns as lack of continuity of care between health care sectors. This is being addressed by strengthening primary care, for example, older people's access to general practitioner [GP] services and community health. Primary care services are used by up to 90 per cent of Australians in New South Wales, by consulting with GPs, allied health professionals, pharmacists, community health services, dentists and non-government organisations. For this reason primary care is now the vehicle for current strategy initiatives, nationally and internationally. These strategies aim to address population ageing by strengthening Primary Health

Care systems[21]. A major aim of ageing policies in Australia is to obtain optimal and equitable outcomes for Australians. To achieve this, a long-term view of ageing is needed, with an emphasis on engaging other levels of government, communities and business to improve continuity of care, such as transition from hospital to home[15]. As a consequence, discharge planning assumes particular significance.

The effects of having an increasingly older Australian population will impact on all parts of society, particularly health infrastructure. An example is the effect on Commonwealth and State funding for residential, home and community health programmes[22]. The consequences of this phenomenon will continue, increasing pressure on health and welfare services, including by increasing numbers of older people interacting with acute care services[1, 23].

2.3 Models of care

Often acute hospital settings are configured to focus on acute, procedural care and do not meet the unique needs of the older person[9]. Sadly, this failure to create care models appropriate to the needs of older people has led to not only adverse health-related outcomes for individuals, such as hospital-acquired infections and falls,[9, 24, 25] but also increased demands and pressures on health care systems[22].

2.3.1 The need for models of care

Models of care provide a template for replication and emulation, showing the integration of key conceptual elements. In recent times, models of care have received increased attention as policy makers, health professionals and consumers grapple with ways of accommodating contemporary epidemiological and management trends within systems of delivery of care that have been based on traditional principles.

Models of best practice are needed to ensure the well-being of older people in the health system[3, 26, 27]. The Queensland Government (Australia) in a recent review of the literature reported that it found no consistent definition of 'model of care'[28]. It concluded that a model of care is a multi-dimensional concept that defines the way in which health care services are delivered[28]. Pearson[29, p 2] describes a model as "a descriptive picture of practice which adequately represents the real thing". Due to uncertainty in the literature frequently the terms model of care, nursing models of care, frameworks and theory are used interchangeably, regardless of referring to varied, yet comparable concepts[30].

A model of care is described by Davidson and Elliott[31 p. 121] as a conceptual tool that is "a standard or example for imitation or comparison, combining concepts, belief and intent that are related in some way". In Table 2-1 below nine essential points that Davidson[30-32] believes are critical to the development of a model of care are presented[31, p123].

TABLE 2-1 Concepts Critical to Model of Care Development

1. Evidence-based and/or grounded in theoretical propositions
2. Inclusive of consultation with key stakeholders
3. Based upon assessment of patient and health provider needs
4. Incorporate evaluation of health-related and intervention outcomes
5. Considerate of the safety and well-being of nurses
6. Consider the optimal and equitable utilisation of health care resources
7. Involve a multidisciplinary approach where applicable
8. Optimise equity of access for all members of society
9. Include interventions that are culturally sensitive and appropriate

Although the literature is replete with accounts of the challenges in caring for older people in the acute care system, solutions are less evident. The INHospital Study has

utilised Table 2-1 to ensure that the key elements to model of care development are identified and included in the study design.

2.4 Models of nursing care

Mosby[4, p 1006] states that *"Nursing models usually describe person, environment, health and nursing"*. A model of care refers to the delivery of health care across a multi-disciplinary team and larger health care system in comparison to a nursing model that examines the practice domain of nursing[30]. Although the INHospital Study developed a model of nursing care, there was informal involvement from members of multi-disciplinary teams, such as pharmacists, doctors, social workers and physiotherapists.

Quality nursing care is needed to ensure the health and recovery of all older people during hospitalisation. Quality Improvement [QI] principles often inform the development and evaluation of a nursing model or model of care as they are inherent in the aim to improve service efficiencies, patient and organisational outcomes[30]. Quality programs have been described as designed actions performed by an organisation or health system to improve the quality of health care[33].

Campion[34] suggests that research-based nursing models need to be developed and evaluated to address the particular needs of older hospital patients and to ensure their health outcomes are positive. Current literature and research shows that when nurses agree and collaborate on a model of care to inform their daily practice, it provides direction to guide decision and policy-making[35]. One process in developing appropriate models of nursing care for older patients is to consider what they, their families and nurses expect in terms of nursing care. This can be achieved by

including patients and significant others in design and evaluation of suggested changes to care practices and by re-considering new models of practice as circumstances change over time. This also shifts the power base so that nurses, patients and family carers can work collaboratively. This is important as the literature suggests that patients and their families will tend to have clear ideas on care priorities[27]. This approach aligns with the NSW Health principles discussed in Framework for Managing the Quality of Health Services in NSW[27, 36].

Models of nursing care have also been recommended to help with coordinating the health care of the older person[37]. For example, nursing care models provide a framework of action that is well suited to the level of care required by older patients with complex health problems. This complexity needs to be managed by nurses. However, unless they employ consistent approaches in care management, the outcomes for older patients may not be satisfactory[6].

Pearson et al.[35] suggests that one of the reasons for inconsistencies in the care given by nurses could be that they are operating from different models/frameworks of care, or from a medical model. This may not only bring about inconsistent care, but may cause conflict within the nursing team as it influences nurses' decisions and actions[38]. Nursing has traditionally focused on a systems-based approach to care, in tandem with the medical model. Nurses need to react to the changing roles they play in health care today, particularly with regard to the care of older patients. With the ageing of the patient population and rapidly changing health system demands, models of nursing care may assist nurses to deal with these changes[27].

2.5 Specific models of care for older people

In order to develop conceptually congruent models of nursing care, an understanding of the fundamental principles of the organisation of work practices is necessary. Nelson[39] states that finding care models that fully express nursing as a professional role continue to be elusive. However, engaging in systematic research is important in developing and evaluating models of care. A range of nursing models have been used to describe the organisation of nursing care. Table 2-2 describes the key approaches to delivering nursing care. Many models implemented in the clinical setting are actually hybrid approaches, incorporating a range of elements from different models. Dynamic staff mix and acuity of case mix mean that various models can be used interchangeably, depending on the clinical environment and skill mix.

TABLE 2-2 Approaches to nursing care delivery

Source: Davidson P.M. & Hickman L. Managing Client Care in Potter and Perry's Fundamentals of Nursing[40].

Model of nursing care delivery	Strengths	Limitations
Functional nursing	Nurses become proficient in a designated task	Lack of integrated approach to care management
	Potential for efficiencies in time management	Client needs subsumed in organisational demands
Team nursing	Accommodates a range of skill mix and scopes of practice	Less registered nurse involvement may impact adversely on client outcomes
	Allows for a collaborative approach and uses a range of expertise	Dependent on high level organisational, delegation and coordination skills of the registered nurse
Total patient care	High level of coordination of care	Increased costs associated with high numbers of RNs
	Access to high-level clinical skills and decision-making	Decreased capacity for skill development in more junior members of the nursing team
Primary nursing	Strongly client-centred model of care promoting autonomous decision-making	Efficacy of the model dependent on the quality of the care plan and communication within the health care team
	Promotes continuity of care and interdisciplinary communication	Greater dependence on RN models of care potential for role burden for the RN
Case management	Promotes continuity of care optimal for clients with chronic and complex care needs	Need for communication structures such as regular team meetings which can be time consuming
	Creates a point of contact for clients and the health care team	Dependent on coordinating and communication skills of case manager

2.5.1 Striving for person-centred care

A person-centred care approach or model has been described as knowing the person so that nurses or practitioners can find equal ground with the person to assist them with their own unique specific needs. McCormack[41, p 473] defines person-centred care as follows:

> " ..being person-centred requires the formation of therapeutic relationships between professionals, patients and their significant others, and that these relationships are built on mutual trust, understanding and sharing collective knowledge".

Whittemore[42] agrees that person-centred care increases the nurse's knowledge, which can allow for better clinical decision-making and optimal nursing interventions. In addition, Stewart et al.[43] identified a positive relationship between a person-centred care approach and improved health status of patients, while also identifying a reduction in referrals and diagnostic tests in their observational cohort study. In practical terms, McCormack and McCance[41] describe four pre-requisites for person-centred care: the attributes of the nurse, the environment or situation in which care is delivered, the processes in place to enable person-centred care such as a focus on the delivery of care through activities, and expected outcomes. Below an example of developing and tailoring care to improve the care of older patients is discussed.

2.5.2 Nurses Improving Care to the Hospitalised Elderly project

In the United States the Nurses Improving Care to the Hospitalised Elderly[44] [NICHE] project commenced in 1992. This large innovative collaborative study was conducted throughout the US in 55 health systems. Five different nursing models have been developed, tested and improved upon since this project began[44]. The nursing focus of these models and the protocols developed from them ensure that

nursing intervention has a positive effect on patient care. As demonstrated below, application of the models has resulted in many significant outcomes when implemented within the right environments. In contrast with other models of care, the NICHE programme models do not prescribe how geriatric care should be modified; instead, they provide services and materials that will aid in the development and implementation process[45].

Another model within the NICHE project is the geriatric resource nurse [GRN] model, where nurses gain enhanced skills in the care of the older patient and act as geriatric nurse specialists [GNS]. They become resources for best practice as well as having a direct patient workload. This assists nurses in acquiring greater knowledge about the specialised needs of acutely ill older patients[44]. Lopez et al.[46] implemented the GRN model and researched its outcomes and identified its strengths. The strengths of this model include improved practice, nurses being more sensitive to the nursing needs of their patients, improved assessment guidelines and tools, and increased satisfaction rates of nurses, patients and family. However, incentives need to be in place to gain and retain staff with these expert skills in the GRN model. Continued research and analysis is needed into the many strengths of this model as well as the cost effectiveness of this over the original conventional models of care.

It is the GNS who implements the Comprehensive Discharge-Planning Model with demonstrated effective outcomes [CDP][45]. A randomised clinical trial was conducted by Naylor et al.[47] to test the CDP model, involving hospitalised older patients (above 75 years), with 186 in the control and 177 in the interventions group. There were significant findings for these at-risk patients, revealing that using

advanced practice nurse-centred discharge approaches with home care intervention reduced the patients' readmission rates, increased the period before readmission and reduced health care costs.

As health issues are rapidly changing it is well documented that there need to be continued collaborative research studies, and research needs to keep up with these changes. The National Health and Medical Research Council (NHMRC) in Australia states that research in ageing is now a priority area and continued research is needed to guide decision-making[21, 48].

2.6 The role of sustainability in the INHospital Study

As discussed above, continued research into ageing is needed. An important aspect to this research is how the outcomes will be implemented and how the proposed changes will be sustained. Yet ensuring the transfer of models of care evaluated in a research context to the usual care is dependent on the concepts of introducing change and sustaining favourable outcomes.

2.6.1 Sustainability of affirmative health care practices

The challenge of protecting health in this time of rapid change involves understanding both the large and small representations that make up health care. McMurray[49] describes this as follows:

> "Contemporary definitions of health acknowledge the connectivity between people and the environment in two ways: first, health is dynamic rather than static and second, the environment or context of people's lives influences the extent to which they can reach their health potential"[49, p 13].

Therefore communities are ecological: the community gives to the people, and the relationships of people within the community give back to the community with

mutual benefits[49]. The ideal is sustainable health where there is the ability to act in response to all poor health within communities with all health resources necessary[49]. Key factors identified in promoting sustainability of favourable change in the clinical setting are: clinical leadership[50], capacity building, involvement of key stakeholders, evidenced-based practice, use of change management strategies, promotion of organisational change, quality improvement practices, participation in clinical governance, best practice guidelines informed by research evidence, and community engagement[40, 49, 51, 52].

2.6.2 Barriers to sustainability

There are many barriers to sustainability at both a global and a local level. Unruh[53, 54] argues that these barriers are due to the disparity between the governing institutions and the technological systems that are built for stability and consistency, not change. As described above, the health care system is dynamic not static. With the use of action research the INHospital Study aims to promote factors that favour sustainability in the clinical setting. The INHospital Study has used an action research process to empower participants, and promote a sense of control and ownership of clinical practice. The researcher's role was that of a facilitator whose purpose was to enable the participants to own the process of change as it occurred, with the aim of identifying changes that could be sustained once the researcher left the study setting.

2.7 Nursing issues impacting on older patient care

Australia, similar to other parts of the developed world, is facing a nursing crisis. Some of the well-documented nursing issues that impact on patient care quality include: nursing education, nursing shortages, nurses' attitudes towards the older

person, nurses' lack of specialised skills to care for older people, and nursing responsibilities within the current climate of economic rationalism[55-59].

Jones and Cheek[60] identified the challenges and skills needed within the scope of nursing as a result of their interviews with registered and enrolled nurses from metropolitan and rural areas. Eleven themes were identified in the study findings, revealing issues nurses face in the current climate of health care. The first theme indicates there is no such thing as a typical day for nurses in acute settings, as they often face many different challenges and are expected to work not only in their own unit/ward but also often across interdisciplinary territories. Nurses, therefore, regard strong assessment skills, both clinical and theoretical, as an essential part of their work as well as having contextually-dependent knowledge[60].

Jones and Cheek[60] also identify that the nurses perceived that they needed to be self-aware and have a passion for people, otherwise patients regarded the nurse as cold and the care ineffective. The major theme and skills required were communication, leadership skills and good management. The nurses in this study were aware of the constant stress and conflict between staff and the aggression and/or violence experienced in the workplace from staff, patients and families members. Another theme emerging was that of nurses feeling undervalued and not respected by society, other nurses and other health professionals[60]. All nurses in this study described their days as fast with not enough time to provide quality care in a context of shrinking resources with rigid models or structures in place. At the same time, despite the expectations of the current health care climate, they recognise that life-long learning is constantly needed to keep up to date with new technologies, drugs, techniques, procedures and equipment[60]. Flexibility in the management of

nurses and partnerships with key stakeholders are necessary if nursing is to keep up with the constant changes in the health care system[60].

2.7.1 Changing nature of the nursing profession

In addition, Creegan et al.[61] also recognise the changing nature of the nursing profession. Nursing issues urgently need addressing and the challenges need to be faced to enable nurses to stay in nursing, to help address current nursing shortages, and to pave an improved path for new nurses. There are constraints that face nurses on a daily basis in regards to power and autonomy, and the expectations of how nurses should perform within the hospital environment when caring for their patients under the constant pressure of rationalisation and cost control[2, 62, 63].

The nursing workforce shortage is a worldwide issue and a constraint that nurses face daily[57, 61, 64]. The demand for nurses far exceeds the supply, both in Australia and internationally. Consequently the shortage of experienced and specialist nurses is a global issue which has had consequences such as the casualisation of the current nursing workforce. Australia is losing more nurses than can be replaced by Australian nursing graduates[57]. Nursing shortages are now a reality within the health workforce and there are many reasons for these shortages, some of which have been identified by Jones and Cheek[60].

Duffield and O'Brien-Pallas[57] claim that although there have been many international research reports that address the nursing shortage, Australia has little equivalent data on this issue. Nursing shortages are not only a problem for the nursing profession, but are also an issue for key stakeholders such as facility and workforce planners. Crucial key issues in the nursing shortages are nurses' work

environment, workload and unsafe work environments characterised by issues such bullying and harassment which impact negatively on retention[57].

2.7.2 Older patients with specialised care needs

Older patients are a special population group with specialised care needs. Given this time of uncertainty within the nursing workforce, Duffield and O'Brien-Pallas[57] identify that specialised skills are needed due to increasing complexity and acuity of patients', health issues, particularly as patients are ageing and requiring more skilled nursing care. Without specialised skills the nursing workload is likely to increase, with nurses being more dissatisfied and possibly leading to an even greater nursing shortage. In these circumstances patients may not receive the quality of care they expect.

Pudelek[65] argues that caring for the older population requires specialised nursing skills just as children need specialised paediatric care nurses. Thus, older patients are a population group with specialised care needs. The Australian National Review of Nursing Education[66] also argues for a similar view to that of Duffield and O'Brien-Pallas[57], stating that the shortages not only impact on nurses, hospitals and patient outcomes but also on education outcomes of nurses. Given the increasing acuity and complexity of older patients, specialised skills and resources are needed to nurse them[65]. Given the current shortages of nurses in acute aged care[57], many hospitals staff their wards with casual or agency staff who may not necessarily have the specialised skills to care for the older population or, more particularly, have the requisite knowledge of individual patients to understand their particular care needs[65, 67].

Although many strategies have been suggested to address this situation, such as specialised education for nurses, continuity of care and familiarity in specialised care units for older patients, these require financial and collaborative support by the governments and health care organisations so that change can happen. Quality nursing care is needed to ensure the health and recovery of all older people during hospitalisation. Given the shortages, we need to find more efficient ways of providing care, and developing and evaluating models of care specifically tailored to particular groups such as older patients.

2.8 Nursing priorities

The delivery of nursing care is dependent on a range of issues, including skill mix, resources and also a perception of care priorities. To date little research has been undertaken in assisting nurses' understanding of older patients' nursing care needs. The little research that has been conducted indicates that older patients tend to be more concerned about their physical care needs, whereas nurses have greater concern for satisfying patients' psychosocial needs[68-70]. The priorities of nurses, patients and their carers need to be congruent. At another level, the attitudes of nurses towards older patients need to be considered in terms of nurses' perceptions of the level of care that older patients require. Courtney et al.[55] found that nurses' attitudes play an important role in how they practise and care for their patients.

Research suggests that nursing care can result in negative patient outcomes for older patients. For example, an Australian study by Wilkes et al.[71] identifies nurses' lack of knowledge about the needs of older people during hospitalisation. Also, as described by Lopez[72], nurses need to be aware of the norms within hospital environments, which influence the kind of care received by patients. Wilkes et al.[71],

through a survey analysis of 261 nurses working in a metropolitan hospital, found that in general nurses have insufficient specialised knowledge to fully understand and address the needs of older patients. Useful recommendations arising from this study include introducing tailored education programs for nurses to improve the perceptions nurses have of older patients and broadening their knowledge base about older people and ageing. While the conclusions of the study were limited by the low response rate (34%), the findings are an important contribution to Australian nurses' knowledge on this issue.

The nature of the relationship between health professionals is changing. In the past this relationship was shaped largely by the dominance of western health care and disease-specific models[50]. Waddell and Peterson[62, p147] state that nurses are currently a central role in the delivery of health care, although compared to doctor/patient-centred research, comparatively little research has been carried out in this area, although this is still apparent in contemporary practice.

2.9 Patient and carer priorities

Currently, with the ever changing health care system, implementations and development of chronic care initiatives[10, 73], it is a priority to involve consumers in decisions about health and medical care[74]. The literature identifies a number of gaps in relation to the nursing knowledge of patient and carer priorities, expectations and satisfaction. Nurses need to ensure patient satisfaction, and this is influenced by similar nurse-patient perceptions of needs[75-78]. As most of the research in this area has been conducted with general ward patients, there is a need to investigate current priorities of older patients in acute, aged care hospital wards.

2.9.1 Satisfaction with the care experience

Urden[79] states that when patient experiences are evaluated, important information is made available that can be utilised for transformational changes in care delivery and services. In addition, gaining an understanding of patient satisfaction allows indicators for evaluating staff, manager and system performance and effectiveness[79]. Patients satisfied with nursing care are more likely to promptly obtain medical treatment compared with patients that are not satisfied[80]. It is important that nurses have knowledge of patient expectations in order to ensure patient satisfaction, as effective nursing is influenced by similar nurse-patient perceptions of needs[75, 78, 81, 82].

In the current changing health care climate the priorities of patients and their carers need to be congruent. A large number of consumer complaints indicate that hospital staff, including nurses, are failing to meet the needs of older patients. For example, Higgins et al.[83] report that concerns about the quality of care for older patients are frequently expressed through letters to the media and hospital administrators. Wilde-Larsson and Larsson[84] also found that older patients report low satisfaction with the quality of care they receive during hospitalisation. A recent NSW Government-commissioned study reports that the needs of older people and their carers are not met in hospital, with patients discharged too early without their needs being assessed[37]. This sometimes results in serious consequences for the patient and family upon discharge, and places enormous strain on post-acute care services.

Hart et al.[85] reinforce the need for acutely ill hospitalised older patients to have their special needs met with specialised care to reduce the chances of poor health outcomes. Hart et al.[85] suggest that for this to happen clinicians need to work in

collaboration with patients and family members to undertake consistent multidisciplinary assessments within a supportive environment. One of the limitations of many studies about patient needs and priorities is that very few consider the views of the family/carers on patient care quality or priorities in care needs. Family/carers of the older patient are often involved in the daily care of the person at home, and are regular visitors during the patient's hospital stay, and therefore they are able to observe the health care provided[86]. As such, their perceptions on care quality priorities can contribute to this body of literature.

Evidence suggests that when families are involved in care decisions there is a positive impact on the patient and a wealth of information that carers can provide[87]. In turn, this may positively influence the care the patient receives[87]. However, this can be a very time-consuming process for nursing and other health staff. In the context of the issues nursing currently faces, time for consultation with carers cannot take place without the support and involvement of all key stakeholders such as hospital management and the multidisciplinary team[60, 74].

Data from Australian studies on family members' perceptions are sparse. One study by Higgins et al.[83] used a phenomenological approach to identify the older patients' perceptions, with phase two of the study including the experiences of significant others such as close family and friends. This Australian study revealed three themes that described the experiences of older patients during hospitalisation: encountering the unfamiliar, enduring and managing the hurt, and making sense of the experience.

These findings are relevant as the study was conducted in response to negative local media reports about aged care. The study considered the question of whether or not the care of the older patient in acute hospital settings was meeting the expectations of

the patients and their significant others. The conclusions drawn included an urgent need for more research into this topic and into the experiences of other age groups in order to give a comprehensible portrait of what distinguishes the experiences of the older patient in an acute care setting. Recommendations arising from this include basing education and orientation programs on the study findings. Other recommendations are that organisational design and policy could be used to improve patient outcomes. The INHospital Study was driven by the premise that in order to ensure optimal health outcomes of older hospitalised patients, nursing care must be responsive to the priorities and needs of patients and their carers, and actively involve clinicians in the collaborative planning, delivery and evaluation of care. These principles fit within the directions recently released by NSW Health in their road show of Models of Care[27].

In summary, research suggests that if nurses seek to improve the care of their patients, they must seriously consider including issues surrounding older patients' needs and care priorities, particularly in acute hospital environments[88]. When nurses are willing to consider the issues, they can begin to develop a clear philosophy and understanding of the care required for these patients.

2.10 Summary

As discussed above, the older patient is at increased risk of poor outcomes such as re-admission, functional decline, increased length of stay and iatrogenic complications as a result of hospitalisation[85, 89]. There is growing concern nationally and internationally about a lack of nursing expertise in the acute care of older patients[60, 71]. At the same time, nurses are struggling to provide high standards of care in a health care system that is characterised by higher numbers of older patients

and a higher turnover of acutely ill older patients with increasing incidences of cognitive impairment. The literature discussed above highlights research that has been conducted to look at these issues and identifies the need to conduct further research[56, 57, 60, 88, 90].

The contextual issues that nurses face and how they impact on patient care have also been addressed within the context of the current health climate. Developing and evaluating models of nursing care are a strategy suggested to addressing issues facing the care of the older person in the acute hospital care setting. The INHospital Study reported in this thesis has been conducted in response to the issues discussed above. Chapter Three presents a literature review of current evidence-based strategies to improve the care of the older person.

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Chapter Three
Elements of best practice to improve the management of the older person in the acute hospital setting

3.1 Introduction

A key issue addressed by the INHospital Study is the consideration of strategic initiatives to improve the care of the older person in the acute care setting. An important first step in developing models of nursing care is to identify evidence-based strategies. As discussed in Chapter One, globally the population is ageing[1-4]. Although longevity is associated with positive outcomes related to health, it also increases the risk of chronic conditions that often require acute care intervention to manage exacerbation and minimise disease progression[5]. Ageing is often associated with functional and cognitive impairment, as well as alteration in physiological status, and thus for many older people their encounters with the acute care system can be problematic[1, 6]. Older people are also at increased risk of iatrogenic complications such as drug interactions, falls and poor health outcomes following discharge from hospital. These factors often lead to an increased risk of re-admission[7, 8].

3.2 Evidence-based practice: a platform for model of care development

In order to optimise health outcomes for older people in hospital, nursing care needs to be responsive to the needs of older patients (their priorities) and those of their families[9, 10]. Nursing care needs to be informed by the best available evidence-based practice. Courtney[11] describes evidence-based practice as applying research-based evidence to support decision-making concerning the health care; this is inclusive of identifying knowledge gaps, finding and methodically appraising and condensing evidence to support knowledge and expertise in the clinical setting. There are many benefits of evidence-based practice to consumers, nurses and the health care organisations. A commitment to evidence-based practice allows nurses a controlled, efficient way of remaining clinically current through utilising evidence-based practice to provide rationales for clinical decision-making[11].

In order to inform the action research process and capacity for practice development described in this thesis, the INHospital Study undertook a targeted comprehensive literature review. For the purposes of this review an older person was defined as an individual older than 65 years and an intervention was defined as any change to the current model of care to improve the care of the older person in the acute hospital setting. In order to derive key themes emerging from the experimental literature, a modified integrative literature review technique was used[12]. An integrative literature review seeks to generate new knowledge through the synthesis of existing information. In order to identify key strategies for improving the care of older people in hospital, this review sought to identify studies that used an experimental method[12]. The electronic databases MEDLINE and CINAHL and the Internet were

searched to identify relevant literature published in English. The search terms included ‘elderly, ‘older’, ‘geriatric’, ‘aged care’. Clinical trials were included if they were either randomised or case-controlled trials. In order to capture the experience of patients in the acute care hospital setting, studies from emergency department presentation to hospital discharge were reviewed. Relevant locally-held journals and the reference lists of retrieved papers and published reports were searched for additional literature. If there was any indication that unpublished material might be available, the authors were contacted for further information.

Descriptive studies were not included in this literature review because they failed to provide high-level evidence of the efficacy of the interventions within a framework of evidence-based practice[13]. However, relevant descriptive studies have been used within the INHospital Study and are discussed in different parts of the thesis; see summary in Table 3-1 for the common themes from these studies as they were valuable to adding to the body of established knowledge.

Although the majority of the available literature deals with care of the older person within subacute care, residential care and care at home, a number of descriptive studies were identified in relation to care of the acutely ill older person in the acute care hospital. For example, attitudes of healthcare workers, workforce related issues, and patient related characteristics such as cognitive impairment have all been shown to impact on the quality of care and these key issues are summarised in Table 3-1 below. Although these descriptive studies have been useful in characterising care of older people in acute care settings and for hypothesis generation, few randomised or controlled trials have investigated the care of older people in the acute hospital or within specialised acute geriatric/ aged care units. In order to identify high-level

evidence, this review has focused on studies with an experimental design as identified in the National Health and Medical Research Guidelines[13].

TABLE 3-1 Themes identified in descriptive studies

Physical, social and psychological needs of the acutely ill older person such as frailty, increased fall risk, impaired cognition, higher need for community based care[14]
Lack of continuity of care across care providers[15-17]
Higher risk of iatrogenesis such as infections, delirium, falls, medication interaction[7, 8]
Need for new models of care to address healthy ageing and chronic care needs[4, 18-21]
Published research comparing differences in patients and nurses' nursing care priorities[22-25]
Cultural influences on the needs of older patients such as the importance of involving family members and nurses being culturally competent[26-30]
Nurses' lack of preparation and skill development to care for older people in acute care settings[31-33]

3.3 Findings of the targeted search strategy

As shown in Figure 3.1 below, the initial search yielded 712 citations of potentially suitable trials. Abstracts and full papers were then reviewed against the inclusion criteria. This review process identified 26 papers published between 1985 and 2006 which met the inclusion criteria and were analysed in greater depth to identify evidence-based strategies. The studies included in this review are summarised in Table 3-2 according to the clinical setting in which they were conducted. Owing to the nature of the research topic, the heterogeneity of study populations, methods used and the outcomes of the studies, the use of meta-analysis techniques was not possible. Therefore, a modified integrative literature review[12] used a method of content analysis to derive common themes from the findings of experimental studies. Data from the included papers were synthesised into a narrative review to highlight and discuss the key themes that emerged: (1) a team approach to care delivery either directly in a designated unit for older patients or indirectly using gerontological expertise in a consultancy model; (2) targeted assessment techniques to prevent complications; (3) an increased emphasis on discharge planning; and (4) enhanced communication between care providers across the care continuum. These key themes are displayed in Table 3-2 and discussed in detail after the Table.

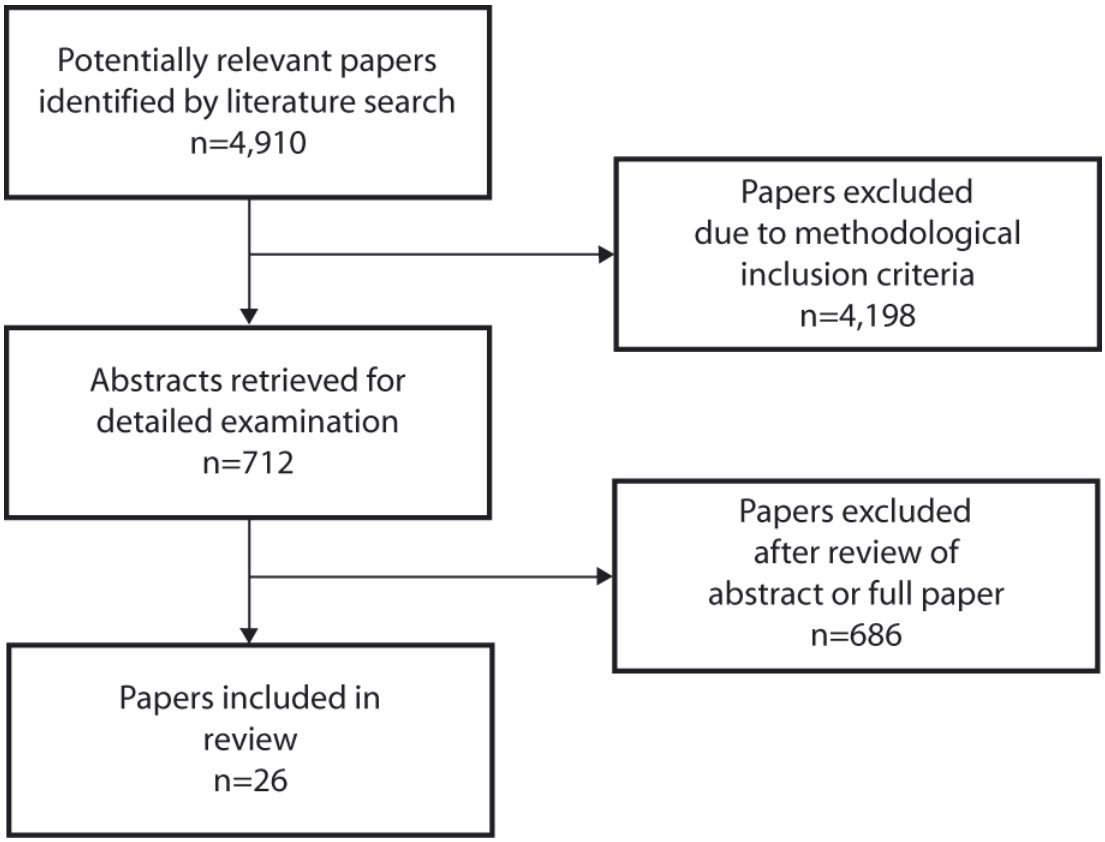

FIGURE 3.1 Flowchart of trial selection process

3.4 Quality appraisal

These papers were evaluated independently by the researcher for the INHospital Study and another reviewer against a standardised assessment tool to appraise information such as randomisation, outcome measures and the NHMRC[(34)] levels of evidence. In cases where there was discrepancy between the two papers a third reviewer adjudicated, and finally it was appraised by the whole research team.

TABLE 3-2 Summary of selected studies

Reference	Study Design	Clinical Area	Sample	Intervention	Results
Mion et al.[35]	Multi-site RCT	Emergency department	650 individuals aged 65 and over who were discharged home after emergency department presentation.	Comprehensive geriatric assessment in the ED by an advanced practice nurse and subsequent referral to a community or social agency, primary care provider, and/or geriatric clinic for unmet health, social and medical needs.	Intervention had no effect on overall service use rates. It was effective in lowering nursing home admissions (0.7% vs. 3%; odds ratio 0.21; 95%CI; 0.05 to 0.99) and in increasing patient satisfaction with ED discharge care (3.41 vs. 3.03; mean difference 0.37; 95% CI 0.13 to 0.62) Intervention was more effective for high risk patients then low risk patients.
Basic et al.[36]	RCT	Emergency department	224 elderly people presenting to the emergency department.	Patients were administered a series of instruments measuring different aspects of care in the emergency department. The nurse documented in the patients notes recommendations for those patients admitted. Those patients not admitted were referred to appropriate service.	No significant effects on admission to the hospital, length of stay or functional decline during the hospitalisation. Early geriatric assessment and documenting recommendations and referrals alone were not effective.

Inouye et al.[6] and Inouye et al.[37]	Controlled clinical trial	General medical ward	852 patients aged 70 and over admitted to a general medicine unit with at least one risk factor for cognitive or functional decline Inouye et al[6]. 1,507 patients aged 70 and over admitted to a general medicine nursing unit with at least one risk factor for cognitive or functional decline[37].	Screening for six risk factors on admission (cognitive impairment, sleep dehydration, immobility, dehydration, vision or hearing impairment). Implementation of targeted interventions for the identified risk factors by an interdisciplinary team including a geriatric nurse specialist.	Hospital Elder Life Program improved total length of delirium (105 vs. 161, P=0.02), total number of delirium episodes (62 vs. 90, P=0.03). However there was no reduction in the severity or recurrence of delirium Inouye et al[6]. Hospital Elder Life Program successfully prevents cognitive and functional decline in at-risk older patients[37].
Gayton et al.[38]	RCT	General medical ward	403 patients aged 70 years or older admitted to study ward directly from the emergency department.	Patients received the standard care plus the addition of consultation by a geriatric team (geriatrician, geriatric nurse consultant, physical and occupational therapist) to ensure there was comprehensive, coordinated assessment, treatment, rehabilitation and discharge planning.	The addition of a consultative geriatric team failed to show a significant difference with both groups showing similar results at all time points.
Kaste et al.[39]	RCT	General medical ward & Neurology ward	243 patients aged 65 and over admitted to hospital due to acute stroke.	Patients were randomised to receive care in either the Medical Department or the Neurological Department. Outcome assessed by mortality, length of hospital stay, ability to live at home on discharge, Barthel Index & Rankin grades at 1 year.	Patients receiving care in the Department of Neurology had shorter length of stay (24 vs. 40 days), more often went directly home on discharge (75% versus 62%; P = .03), and were more independent in daily living activities at one year.
Pitkälä et al.[40]	RCT	General medical ward	174 patients aged 69 and over admitted with delirium to a general medicine unit from an acute hospital.	Individually tailored geriatric treatment following detailed assessment of needs and careful diagnostics of underlying etiological conditions.	Intervention resulted in faster alleviation of delirium and improved cognition (p=0.002) although no significant improvements in mortality or the proportion of patients admitted to permanent institutional care (60.9% vs. 64.4%; p=0.638).

Tucker et al.[41]	Control trial (Pilot)	General medical ward	141 patients aged 70 and over with predicted length of stay greater than 48 hrs.	Geriatric assessment was implemented which determined the rehabilitation services needed.	Coordinated, geriatric specific care had a positive, measurable impact on the quality of care, costs ($6,162 vs. $9,184.81) and provided geriatric support to physicians and hospital staff.
Slaets et al.[42]	RCT	General medical ward	237 patients referred to the department of general medicine aged 75 and over.	Multidisciplinary joint treatment by a geriatric team in addition to the usual care to obtain optimal level and basic activities of daily living function and mobility.	Greater improvement in physical functioning, shorter length of stay, less hospital readmissions (17.4% vs. 29.9%) and fewer admissions to nursing homes among intervention group (18% vs. 27%).
Reuben et al.[43]	Multi-site RCT	General medical ward	2,353 patients aged 65 and over who met at least 1 of 13 screening criteria	Comprehensive assessment of elderly patients by an interdisciplinary team. Screening factors assessed were; stroke, immobility, impairment, basic activities of daily living, malnutrition, incontinence, confusion/dementia, prolonged bed rest, recent falls depression, social or family problems, unplanned readmission within three months, new fracture, age.	Comprehensive geriatric assessment with limited follow up did not improve the health or survival (74% vs. 75%) of hospitalised patients.
Winograd et al.[44]	RCT	General medical & surgical wards	197 patients aged over 65 years with some level of functional impairment admitted to acute medical and surgical services.	Inpatient geriatric consultation consisting of comprehensive functional, mental, medical, and social evaluation with recommendations by an interdisciplinary team.	No differences were seen with any measure between the two groups during or after 12 months follow-up. Future studies should target frail patients, including intervention specific measures and be conducted with direct control of resources.
Schmader et al.[45]	RCT	General medical & surgical wards	834 patients aged 65 or over, hospitalised on a medical or surgical ward, had an expected stay of 3 or more days, and met the frailty criteria.	Core team of geriatrician, social worker and a nurse. Pharmacists performed regular assessment and made recommendations regarding medication. Team members implemented evaluation and management protocols.	Inpatient input by a geriatric team significantly reduced unnecessary and inappropriate drug use and under-use (p <0.05).

Hickson et al.[46]	RCT	General medical ward	592 patients over the aged of 65 admitted to an acute medical ward.	Feeding assistants were employed to provide nutritional support to patients including monitoring dietary intake and provide solutions for any feeding difficulties.	The median time patients received feeding support was 16 days, and the assisted group was given less intravenous antibiotics (p=0.007). However, the groups did not differ in markers of nutritional status, Barthel score, grip strength, length of stay or mortality.
Cole et al.[47]	RCT	General medical ward	227 patients aged 65 or over who were screened within 24 hours for delirium.	Subjects in the intervention group were seen by a geriatric specialist consultant and were followed in hospital for up to 8 weeks by an intervention nurse or liaised with consultant, physicians, family and primary care nurse.	The benefits in terms of reducing the time to improvement in cognitive status were modest and not statistically significant.
Naylor et al.[48]	Multi-site RCT	General medical & surgical wards	363 patients aged 65 or over identified as being at-risk.	Intervention group patients received a comprehensive discharge planning and home follow-up protocol designed specifically for older persons at risk for poor outcomes after discharge and implemented by advance practice nurse.	Advance practice nurse-centred discharge planning and home care intervention for at-risk hospitalised elders reduced readmissions (20.3 vs. 37.1%; p<.001)., lengthened the time between discharge and readmission (p<.001), and decreased the costs of providing health care $0.6 million vs. about $1.2 million; p<.001).
Jayadevappa et al.[49]	Retrospective case-control design	General Medical & Specialized Geriatric Unit (ACE)	1,360 patients aged 65 and over admitted to the ACE unit with primary diagnosis of CHF, pneumonia or UTI.	Patients admitted to the ACE unit (patients received increased attention to their level of functioning, improved treatments of geriatric illnesses and integrated discharge planning were combined with a thorough pharmaceutical review) and controls were selected from usual Medicare care services to assess the impact of the ACE unit on incremental cost and number of readmissions, respectively.	Patients in the ACE unit had lower medical care costs ($13,586 vs. $15,040; p=0.012), shorter length of stay (4.9 vs. 5.9 days; p=0.01).

Landefeld et al.[50]	RCT	General Medical & Specialized Geriatric Unit	651 patients aged 70 or over.	Patients in the intervention group received care in a prepared environment (i.e. uncluttered hallways, large clocks); and received care which emphasised independence, specific protocols for prevention of disability and rehabilitation; discharge planning; intensive medical care to minimise adverse effects of procedures and medications.	Fewer patients in the intervention group were discharged to long-term institutions (14 % vs. 22%; *p*=0.01. Specific changes in the provision of acute hospital care can improve the ability of older patients to perform basic activities of daily living at the time of discharge and can reduce frequency of discharge to long-term care.
Cohen et al.[51]	Multi-site RCT	Geriatric unit	1,388 frail patients aged 65 and over who were hospitalised at a Veterans Affairs Medical Centre.	Inpatient and outpatient care in a geriatric evaluation and management unit.	There was no significant improvement in survival as a result of either assignment to an inpatient geriatric evaluation and management unit after stabilization of the acute illness (22% vs. 21%; RR1.02, 0.81-1.28). Patients in treatment group had significantly greater improvements in the scores in four of the eight SF-36 subscales, namely physical functioning (*p*=0.006), bodily pain (*p*=0.001), energy (p=0.01), and general health (*p*=0.006) at discharge.
McInnes et al.[52]	RCT	Geriatric unit	364 patients aged 60 and over admitted to a geriatric unit.	Pre-discharge visit by GP with the issue of a consultation sheet and the opportunity to talk to medical and allied health staff, access for GP to patient's medical notes and to see the patient.	While GP pre-discharge visits did not alter outcomes such as risk of readmission (30% vs. 25%; p=0.22) to length of stay (25 vs. 22 days; p=0.23). The results suggest quality of care is enhanced amongst patients receiving a pre-discharge visit.
Rao et al.[53]	Multi-site RCT	Geriatric unit	99 frail oncology patients aged 65 and over, stabilised after an acute illness.	Geriatric assessment and patient management provided by core teams	There was no effect on mortality, SF-36 scores were better for geriatric inpatient cancer patients at discharge. Length of stay (days) (15.1 vs. 14.9; *p*=0.81) and overall costs ($47,300 vs. $45,500; *p*=0.84) were equivalent.

Asplund et al.[54]	RCT	General medical ward & Geriatric unit	413 patients aged over 70 years, admitted for an acute medical illness.	The effects of admission to an acute geriatrics-based ward with emphasis on early rehabilitation and discharge planning were compared with admission to a medical ward.	A geriatric approach, with an emphasis on early rehabilitation and discharge planning shortened length of hospital stay (mean 5.9 vs. 7.3 days; *p*=0.002) and may have reduced the need for long-term institutional living. This was despite no difference in medical or functional outcome between the groups.
Counsell et al.[55]	RCT	Intensive care unit	1,531 patients, aged 70 or over, admitted for an acute medical illness.	Patients were assigned to the ACE model unit or usual care. Patients in the ACE model were assessed on admission for physical and psychosocial parameters.	Greater implementation of nursing care plans to promote independent functioning (79% vs. 50%; *p*=.001), and physical therapy consults obtained (2% vs. 6%; *p*=.001) more frequently with the ACE model. There was also greater patient and provider satisfaction in the intervention group (*p*<.05) without increasing hospital length of stay or costs.
Kleinpell et al.[56]	RCT	Intensive care unit	97 patients aged 65 and over consecutively admitted to 2 ICUs.	Patients were screened in ICU with discharge planning questionnaire and follow-up survey two weeks later at home.	Patients with access to ICU-based early discharge planning were more likely to report they had adequate information, had less concern about managing their care at home, knew their medicines, and knew danger signals indicating potential complications.
Harris et al.[57]	RCT	Nursing-led inpatient unit	175 patients aged over 65 years.	Nursing-led inpatient unit substituting care in acute hospital ward with aim of improving care prior to discharge.	Cost per day was lower on the nursing-led inpatient unit (£139.56 vs. £142.20) although cost per hospital stay was higher (£6,017 vs. £4,410, t=1.973, df=174, *p*=0.050) due to significantly increased length of stay. Post-discharge community care costs were lower (£374.91 vs. £401.60, p=0.25).

Vidan et al.[58]	RCT	Orthopaedic ward	319 patients aged 65 and over admitted for acute hip fracture surgery.	Daily multidisciplinary geriatric care during acute phase of hospitalisation for hip fracture.	The early multidisciplinary geriatric care reduced in-hospital mortality (0.6% vs. 5.8%, p=0.03) and medical complications (45.2% vs. 61.7%, *p*=0.003), but there was no significant effect on the length of stay (16 days vs. 18 days, *p*=0.06) or long-term functional recovery.
Strand et al.[59]	Prospective controlled trial	Stroke unit	293 stroke patients aged over 65 years.	Admission to a stroke unit focused on team work, headed by a stroke nurse, staff, patient and family education and very early onset of rehabilitation.	The stroke unit improved functional outcome (personal hygiene *p*<0.05, dressing, *p*<0.001) and reduced the need for long-term hospital care (12 vs. 28%, *p*<0.05%).

Note: All abbreviations used in the table are described in the glossary of terms

3.5 A multidisciplinary team approach using gerontological expertise

Older patients can challenge care delivery and health outcomes as they often present clinicians with many issues such as frailty, co-morbidities and polypharmacy. Many of the studies reviewed implemented interventions that increased patient access to gerontological expertise either directly in the form of a special unit designed specifically for older patients[45, 49, 50, 54, 55, 58] or indirectly via a specialised team providing input for the management of patients in usual care[6, 37, 45, 50, 55].

This direct team approach is unique and in the studies reviewed appears to be effective, as all studies produced statistically significant findings: Schmader et al.[45] Jayadevappa et al.[49] Landefeld et al.[50] Asplund et al. [54] Counsell et al.[55] Vidan et al. [58] These six studies explored the effectiveness of a specifically designed unit for older patients combined with appropriate interventions for identified risk factors. The ACE care model described by Landelfeld et al. [50] focuses on four elements: a specially designed environment; patient-centred care; planning for discharge; review of medical care. This supports the need for specialised models of care for nursing older patients[50]. Landefeld et al.[50] matched 651 patients over 70 years of age with confounding factors taken into consideration, randomly assigned to the special unit or to the usual ward. The findings demonstrated statistically significantly improved ability to perform activities of daily living on discharge and a reduction in admissions to residential aged care. While this study would appear to provide strong evidence of the efficacy of the intervention, the impracticality of blinding patients and interviewers to the treatments may have resulted in some bias[50].

Counsell et al.[55] also found that when older patients are cared for within a specially designed unit they have improved process of care and patient and provider satisfaction without increasing hospital length of stay or costs. Schmader et al.[45]described how core multidisciplinary teams including a geriatrician, social worker, nurse and pharmacist implemented evaluation and management protocols for regular assessment and recommendation regarding medications in seven inpatient teams. These multidisciplinary teams in specially designed units demonstrated statistically significant results for inpatient geriatric unit care, as unnecessary and inappropriate drug use and under-use during the inpatient period were reduced.

3.6 Improved intervention techniques

The second theme emerging addressed improved intervention techniques targeting risk factors and assessment techniques to prevent complications. In comparison to theme one, the outcomes of studies reporting an indirect approach where gerontological expertise used in a consultancy model in an acute environment (not specialised to the care of the older patient) were varied and dependent on the identified interventions, risk factors and assessment techniques utilised for screening patients[6, 16, 35, 47]. This diversity in outcomes challenges professionals to look at the appropriate tools and vehicles for gerontological assessment. Identifying risk factors associated with adverse outcomes was a key focus of interventions[6, 37]. Identification of risk factors associated with adverse outcomes was a key focus of interventions. Inouye et al.[6] used a prospective matching strategy to allocate patients aged 70 years and older to an intervention using standardised protocols for the management of risk factors for delirium, namely cognitive impairment, sleep deprivation, immobility, visual impairment, hearing impairment and dehydration.

Delirium was assessed daily and occurred in 9.9% of the intervention group compared with 15.0% in the usual care group (p=0.02).

In contrast, Cole et al.[47] randomised patients with delirium following a systematic screening program to an intervention with a specialist geriatric consultant supported by an intervention nurse or to usual care where access to geriatric specialists was on a needs basis rather than routine. This intervention failed to demonstrate improvements in scores of activities of daily living, length of stay or survival. Ruben et al.[43] screened 2,353 patients for 1 of 13 criteria, who were then provided with a comprehensive assessment by an interdisciplinary team. This assessment targeted relevant criteria such as basic activities of daily living, malnutrition, incontinence, confusion/dementia, prolonged bed rest, recent falls depression, social or family problems, unplanned re-admission within three months, new fracture and age. The authors reported no statistically significant results for health or survival of patients. In addition, Mion et al.[35] also failed to produce statistically significant findings for interventions based upon a comprehensive geriatric assessment delivered in the emergency department. These confounding findings highlight the lack of understanding of the key characteristics of the models of care used to treat and manage elderly patients in the acute hospital setting. Further investigation of the use of specialist teams in a consultative role is required before conclusions regarding efficacy can be drawn.

3.7 Increased emphasis on discharge planning

Increasing the emphasis on discharge planning for the hospitalised elderly is compelling as a means of potentially reducing length of hospital stay and preventing re-admissions[56]. However, the evidence for its application in clinical practice is less clear. A nursing-led inpatient unit produced statistically significant reductions in

length of stay and post-discharge community care costs by improving care before discharge but the overall cost per hospital stay was increased[60]. Naylor et al.[48] reported statistically significant findings and positive patient outcomes for the effectiveness of advanced nurse-centred comprehensive discharge planning and follow-up intervention for older patients specifically identified as being at risk for poor outcomes post-discharge and having a high potential for hospital re-admission. The difference between these two studies is that Harris et al.[60]focused on all older patients in the unit in comparison to Naylor et al.[48] who looked at those most at risk.

Kleinpell et al.[56]found that early comprehensive discharge planning resulted in patients being able to report that they had adequate information, less concern about managing their care at home, knew their medicines, and knew danger signals indicating potential complications. Asplund et al.[54] also identified as part of their specialised unit the need for an emphasis on comprehensive discharge planning. Conversely, McInnes et al.[52] demonstrated no statistically significant findings for pre-discharge visit and consultation with the general practitioner of older patients identified at risk although it was suggested that patient care was enhanced by such intervention. The key concepts presented within Theme 3 argue for an emphasis on early comprehensive discharge planning, preferably in a ward, configured to meet the needs of the older people and placing an emphasis on improving care before discharge, early rehabilitation and nursing involvement in the discharge planning programs.

3.8 Communication across the care continuum

As discussed, often older patients have multiple co-morbid conditions and a range of psychological and social issues which can challenge health care[61]. A common underlying theme that underpins the majority of the studies presented in Table 3-2 is

that of communication across the care continuum for improvement of patient outcomes. The studies reviewed utilised various interventions to improve care of the older person; these interventions and models rely on communication from different members of the multidisciplinary teams and patients[35, 55, 59, 60].

Inouye et al.[6, 37] has argued that risk factor identification and the communication of these risk factors be considered so that appropriate interventions can be put in place across the care continuum; Pitkälä et al.[40] demonstrated statistically significant results based on the communication involved in producing individualised geriatric treatments, while Counsell et al.[55] recognised that with better implementation of nursing care plans, patient independence was promoted, with an increase in patient satisfaction. In addition, the concept of 'patient-centred care' as part of the communication process was acknowledged by Landefeld et al[50]. This concept centres on the planning and delivery of care tailored to the needs of the individual and their family. In summary, these concepts link strongly to the findings as communication underpinned the elements of intervention: 1) the targeted team approach using gerontological expertise, 2) improved intervention techniques targeting risk factors, and 3) comprehensive discharge planning process[41].

3.9 Implications for nursing care in the acute care sector

A key finding of this review is the heterogeneity of study settings and interventions and therefore the recommendations must be considered within this context. Yet in spite of this limitation, heterogeneity and co-morbid conditions are a key characteristic of this patient group. For example, a person admitted to hospital with chronic heart failure is often older with multiple co-morbid conditions and a range of psychological and social issues[61]. In addition, a number of studies reviewed demonstrated no benefit on pre-specified endpoints such as length of stay, re-

admission[36] and survival[51]. The use of such endpoints challenges researchers and clinicians alike to look at not only components of interventions, but also the choices of endpoints and the timing of measurements. A number of challenges in undertaking research regarding older people should also be considered. Cognitive deficits precluding informed consent and completion of psychometric measures are likely to preclude measurement of patient reported outcomes, such as quality of life and satisfaction[62]. Yet innovative protocols and recruitment strategies can overcome these factors[63, 64].

Notwithstanding the limitations identified above, this modified integrative review has distilled a number of factors to be considered when formulating nursing care for older patients in the acute care sector. We recommend that nursing care needs to be planned and enacted within a multidisciplinary team approach, with gerontological expertise, considering both the independent and collaborative elements of nursing practice. Data reveal that care delivery appears to be even more effective if the management of an older person is undertaken within a specially designed unit, promoting communication strategies across the care continuum and emphasising discharge planning. Identifying risk factors through appropriate methods and suitable interventions facilitates appropriate care interventions. Some of the interventions and risk assessment screening tools have proven to be effective in improving a patient's outcomes; in particular, interventions within geriatric units specifically designed to meet the needs of older patients appear to be more effective than interventions within usual care[42].

Given the challenges facing the acute care sector in the management of older patients, the lack of randomised controlled trials, specifically looking at nursing interventions is disappointing. In spite of the importance of multidisciplinary care,

the importance of nurses as a driving and coordinating force is undeniable[48, 60]. Achieving consensus on outcome measures that measure not only the effectiveness and quality of care but also patient reported outcome should increase the evidence base available to inform nursing care. Further, in view of the increasing evidence relating to nurse-sensitive, patient outcome indicators and the relationship to workforce characteristics, these factors need to be considered when developing models of nursing care[48, 65].

The factors addressed in this review need to be considered within the frameworks of the wider policy literature. There is concordance in the policy literature that policies and research need to aim at ensuring people maintain the highest possible level of physical, social and mental functioning as they age[66]. Globally, government and professional bodies are reviewing care practices to meet the needs of older people.

In spite of the importance of carers in the management of the older person[67], in reviewing the articles for this review the perspective of family and carers was largely invisible. The role of family/carers and their involvement in patient care is a topical concern[8, 68]. Carers of an older person are often involved in supporting them at home and, during hospitalisation, are regular visitors and able to observe the health care provided[69]. Evidence suggests that when families are involved in care decisions, there is a positive impact on the patients and a wealth of information can be provided which, in turn, may positively influence the care the older person receives[27]. Obtaining the perspectives of family members and carers should make an important contribution to improving the care of older patients in the acute care sector.

3.10 Summary and recommendatons for research and practice

Population ageing and the increasing burden of chronic disease will continue to challenge contemporary health care delivery[4]. A salient conclusion drawn from this review is the distinct link between the type of intervention and health outcomes of the acutely ill older hospitalised patient. Particularly interventions delivered by clinicians with gerontological expertise and in dedicated settings improve outcomes. This observation mandates the development and evaluation of efficient and effective models of care to meet the needs of acutely ill older hospitalised patients. It is also apparent that there is a gap and that models of care and further research studies need to be collaborative and multidisciplinary, viewing the patient and their carers as partners in care delivery along the care continuum. In the current changing healthcare climate, the priorities of patients and nurses need to be congruent and this is an important area for nursing scholarship, research and practice.

This review underscores that although the issues facing the care of older people in acute care facilities are well described, evidence-based solutions are lacking. Although conducting research with older patients in acute hospital settings is complex because of the vulnerability of this group and the difficulties in gaining informed consent due to cognitive limitations, it is important that healthcare professionals face and address these challenges to develop evidence-based interventions. It is likely that an increased focus on the specialised needs and care priorities of older people would improve health outcomes by placing their unique needs on the health agenda. This is a significant lever for investigation of interventions and strategies to improve the care of older people. In order to confidently determine best practice nursing care, clinicians need to be able to draw on a body of evidence that reflects system, provider, patient and carer outcomes,

particularly cost-effectiveness and quality of care indicators. As the proportion of older patients in acute care settings steadily increases, the development of this body of evidence should be an important focus for policy, practice and research.

3.11 Summary

This chapter has described a systematic process of a targeted review strategy, using a modified integrative literature review approach to inform a model of nursing care development. In order to improve the care of the older person in the acute care setting a facilitated approach, the INHospital Study, used action research methods. The dynamic and iterative phases of the action research process are discussed in the following chapters.

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Chapter 4
Action research conceptual framework and methodology: The INHospital Study

4.1 INTRODUCTION

This chapter presents the history, use and rationale for employing action research as the conceptual framework for the INHospital Study. Embedded within the action research framework was the use of mixed methods for data collection. The justification for the use of mixed methods will be presented within this chapter. An exploration of the techniques employed is provided to demonstrate the rigour, reliability and validity of the data of the INHospital Study. This chapter also presents the methodological issues relating to the INHospital Study. Provided is a detailed description of the study design, research setting, participants, ethical considerations, data collection methods and methods for data analysis for each of the three study phases (Figure 4.1). Due to the iterative nature of action research and in order to minimise repetition within this thesis, the findings will be reported as they occurred in Phases One, Two and Three presented in Chapters Five and Six.

Action research is used across many different disciplines and organisations to achieve a wide variety of phenomena and outcomes. For the purpose of the INHospital Study action research is defined as,

> "a participatory, democratic process concerned with developing practical knowing in the pursuit of worthwhile human purposes, grounded in a participatory world view which we believe is emerging at this historical moment. It seeks to bring together action and reflection, theory and practice, in participation with others, in pursuit of practical solution to issues of pressing concern to people and more generally the flourishing of individual persons and their communities"[(1,p1)].

4.2 HISTORICAL PERSPECTIVE OF THE ACTION RESEARCH PROCESS

A variety of sources have inspired action research and this becomes evident when seeking to clarify the history and definitions of action research. Just as action research is used in various and diverse arenas, it also has its history in various and diverse arenas. For example, action research has been used to address issues from organisational change, practices that enhance inquiry, engagement of whole societies and communities of inquiry to disciplinary action research in community development, organisation and business, healthcare, education and medicine, psychological and transpersonal sciences[(1)]. Therefore a coherent history of action research is difficult to provide[(1)], but some examples will illustrate both the history and the diversity of action research.

Strong links to the inspiration of action research have been made to the works of Aristotle, Socrates and Plato 2,500 years ago[(2)]. Eikeland[(2:p.145)] argues that the western belief of knowledge production, which utilises concepts to make sense of science, research and theory such as 'reason', 'method', 'induction', 'deduction' and

'definition', have similar threads as those identified 2,500 years ago in the works particularly of Aristotle.

Furthermore, action research in part has evolved from critical social theory[3], which has long been used by educationalists to understand and explain learning as an emancipating process[4, 5]. Critical social theory arose from a sociological movement at the Institute of Social Research in Frankfurt Germany in the 1920s and 1930s. Followers of this movement identified with the theory developed by Karl Marx (1818-1883)[6], explaining the impact of social change arising from the industrial revolution. A basic principle is that no part of social phenomena can be entirely understood exclusive of the economic, historical, cultural and political context in which it is positioned[3, 7, 8].

Action research is most commonly said to have its origins in the work of the social psychologist Kurt Lewin[9], who developed and employed this research process to explore social problems in the United States of America, such as the relationships between learning and educational processes following World War II[1, 10-12]. Through this process Lewin aimed to identify the gap between research recommendations and implementation, thereby narrowing the theory/practice gap[10]. Two pivotal concepts are used to achieve this: (1) a commitment to improvement, and (2) decision-making using group processes[13]. Implicit in these methods is a recognition of participants immersed in the process to drive change as opposed to externally prescribed and imposed models of intervention[4].

Action research is a form of inquiry that is underpinned by epistemological constructs such as empowerment, active participation and mutual respect[10, 13]. These constructs can be used for both theory generation and to achieve change. Action

research enables the researcher to facilitate the research process in collaboration with study participants[10]. It has no single one design so it is essential that the researcher specifies the design to be used, and that this design defines the aims of using action research as being either theory generation or to achieve change and improvement[14]. The INHospital Study sought specifically to affect and sustain practice change rather than to generate theory while developing the model of nursing care. Action research was employed so the researcher could work 'with' the study participants to achieve change and improvements[4, 15].

Historically, nursing has been dominated by medicine and the bio-medical model has largely shaped its practice. In spite of recent growing professionalism and autonomy, nursing practice is increasingly constrained by the administrative demands for service efficiencies and productivity[3, 16-19]. As discussed in Chapters One and Two, these demands are not always reconciled with the processes best suited to the care of older people[20, 21]. Increasingly nurses are driving the improvements of care of the older person[20, 22]. Recognition of organisational and administrative barriers affirms the potential utility of an action research process to unravel these influences and to further empower nurses to affect change.

4.3 ACTION RESEARCH AS A FRAMEWORK: STRENGTHS THAT DRIVE CLINICAL CHANGE

An aim of the INHospital Study (as outlined in Chapter One) was to develop a model of nursing care using action research and informed through the systematic assessment of three participant groups. In choosing action research the strengths and weaknesses of methodological approaches were weighted up. Traditional empirical approaches of investigation, such as randomised controlled trials, were not

considered appropriate for the INHospital Study. It was considered that the fixed parameters of such methods would not be favourable to driving the implementation of an intervention collaboratively arrived at by clinicians. Action research using a mixed method approach offered a depth of confirmation and completeness of data that either approach could not offer in isolation[23, 24].

4.3.1 Collaboration, empowerment, and driving change with clinicians

The dynamic design of action research offers a methodology that drives change, facilitates collaboration with key stakeholders, empowers participants through the use of collegial and collaborative group processes, and quality improvement initiatives that affect and sustain practice changes[1, 25]. Hope[15,p120] argues

> "for the rejection of naïve rule-based formulae and for recognition of the impact of contextual and pragmatic concerns, so that the potential for the added value of action research might be realized".

In light of the inherent challenges in improving clinical practice[26, 27] the researcher decided it was imperative to collaboratively develop an intervention with clinicians. To increase the potential of the intervention, and to meet the needs of all stakeholders, the researcher in the action research process defines the design in collaboration with, and in response to, the preferences of the study participants. This method was highly suitable for the INHospital Study as it enabled the researcher to facilitate the research process in collaboration with study participants[15], in contrast to other research methods. This also allowed for consideration and measurement of the values and needs of patients and their carers. As discussed above, a key strength of action research is the collaborative group action and the collection of evidence to understand a situation[1, 10].

Action research also allows an open and democratic approach to the sharing of knowledge, based on local reality, which can achieve social change in clinical practice and empower participants[1, 28]. Action research achieves this through providing opportunity for self-reflection and evaluation which enables individuals to gauge involvement and critique their situation[1, 25]. The process of reflection within the action research cycle can alter the power dynamics within the group being researched through facilitating reviews of processes and events and promoting ownership of data. If this process occurs at each stage of the action research cycle, it reduces the power differential between the participants and the researcher as they tend to work as a team at every stage. Shared reflection can also lead to an appreciation of participants' roles in their course of action and of their own potential power to reconstruct practices and beliefs[5, 25]. These factors combined provide an opportunity to implement critically informed action where changes are thought to be achievable and sustainable[1, 10, 29, 30]. The INHospital Study used action research for its potential to improve and enhance clinical practice[31].

4.3.2 Sustainability of change

Another strength of action research is its capacity to drive sustainable clinical change and improve clinical outcomes[1, 13, 25, 30]. This is an ideal method for conducting research in institutions employing contemporary health care systems while simultaneously developing new systems of care[32, 33]. The action research process is shaped and modulated over time and adapted to the context of the health care setting involved[10]. Action research is participatory and situational; this allows a particular need to be addressed in its environment by those who are implicated and affected by the change or outcomes. For example, in the INHospital Study each step in the action research cycle is systematically and self-critically implemented by those nurses

responsible for practice development[1]. The INHospital Study also engaged clinical leaders in the change process as this is also a useful strategy in driving clinical improvements and sustaining change[34].

Given the increasing disparities between best practice and current clinical practice or usual care the action research process is increasingly being used in health care settings and underpins many quality improvement processes such as a collaborative process[34, 35]. In spite of the criticisms made of action research, such as challenges to establishing methodological rigor[31], the potential of this method is to improve clinical outcomes. Although conceptually each research approach used within the action research cycles, for example, the documented analysis, surveys and interviews, are in the action research framework, methodological rigour is attained by addressing each research approach independently and in agreement with its own methodological criteria[36].

The action research process in the INHospital Study has been used by the researcher to collaborate with clinical nurses in uncovering and addressing the needs and priorities of older patients in ways that are meaningful to, and empowering for, the staff and patients. Significantly, the INHospital Study represented a partnership between academic and clinical nurses. Each party brought a unique set of skills and abilities to address the identified issues. This process facilitated sustained change through the fostering of collegial and collaborative group processes.

In summary, action research has many strengths, such as tailoring the research method to the needs of researchers, participants and their environment. Furthermore, it enables, enhances and improves practice, bridges the theory-practice gap and has the capacity to make a significant contribution to evidence-based clinical practice[31].

Action research was a suitable framework for the INHospital Study because of the conceptual underpinnings that empowered clinicians to drive change to improve clinical outcomes. This action research framework has driven the research process in this study from conceptualisation to data collection, analysis and interpretation of findings.

4.4 LIMITATIONS AND BARRIERS TO THE ACTION RESEARCH APPROACH

Potential limitations and barriers to the application of the action research process are the intrusiveness of the research process, varied interpretations and a perception of the lack of transportability of the findings[37]. One can overcome many criticisms of an alleged lack of methodological rigour by ensuring that each discrete element of the action research process recognises the methodological tenets of individual approaches. The INHospital Study has used both quantitative and qualitative methods in a mixed method design to facilitate the action research process.

Another barrier is the time-consuming nature of participation in action research. This has been reported as a significant barrier to participation and subsequent success of projects[38]. In addition, there is the potential obstacle that once participation has been gained from partners, the research process is in some instances neither continuous nor predictable due to the iterative nature of the process[38]. In order to minimise this risk, it is useful to ensure that those involved in the action research process remain engaged, focused and enthusiastic. It is also important to communicate only realistic expectations of what is achievable within the scope of the project[38]. As a consequence communication strategies are integral to the action research process.

Methodologically action research may be difficult and it is essential that the researcher and participants approach the method carefully while recognising the limitations of their research when presenting findings[38]. In order to address some of the limitations and barriers highlighted above, a Strategic Working Party[SWP] was recruited which reflected the composition of the nursing team and any issues that arose. The recruitment of key stakeholders and local clinical champions onto the working party assisted in maintaining motivation and momentum over the course of the project. The diversity of the SWP helped to ensured that there was a mechanism in place for all members to continuously feedback to their peers employed to cover the various nursing shifts.

4.5 ACTION RESEARCH PROCESS

The issues action research addresses are real concerns, not abstract concepts; they involve learning about particular practices in particular places[25]. This process helps participants to interpret the processes involved, for example, by reflecting critically on their practice[6, 8] in regards to patient care delivery. The action research process involves opening a communicative environment in which there is a shared method of learning[1, 28]. This assists participants to understand their practices and experiences.

In relation to the INHospital Study, action research enables nurses to reclaim their authority, clarify their own roles and establish conditions under which they can organise their work most effectively[13, 30]. This process of action research means that change is defined and driven by the nurses, rather than the researcher, and issues and actions arise within the dynamics of the research process itself. The professional nurses and clinical leaders involved in the INHospital Study are supportive change agents who are knowledgeable and sympathetic to improving patient care.

While Badger[14] argues that action research has no fixed methodology, this does not suggest that there are no structures and processes associated with the method. Action research always occurs in cycles of reflection, planning, action and evaluating, although at times in the real world of dynamic environments, it is a challenge to differentiate the start and finish of discrete cycles[10, 28, 29]. The action research cycle is continuous and does not necessarily have an end as it can be used repetitively within an environment to manage the change process[10, 29].

4.6 ACTION RESEARCH PROCESS ADAPTED FOR THE INHOSPITAL STUDY

The action research process adapted for the INHospital Study used steps of the action research cycle described by Kemmis and Mc Taggart[13, 28, 39] and Street[10] *reflect, plan, act, analyse and evaluate,* These steps were undertaken in reflexive, iterative cycles. Rather than using a circular format to guide the process, the action research process is a spiral, cycle or helix where the main aspects are repeated as seen in Chapter One and below in Figure 4.1.

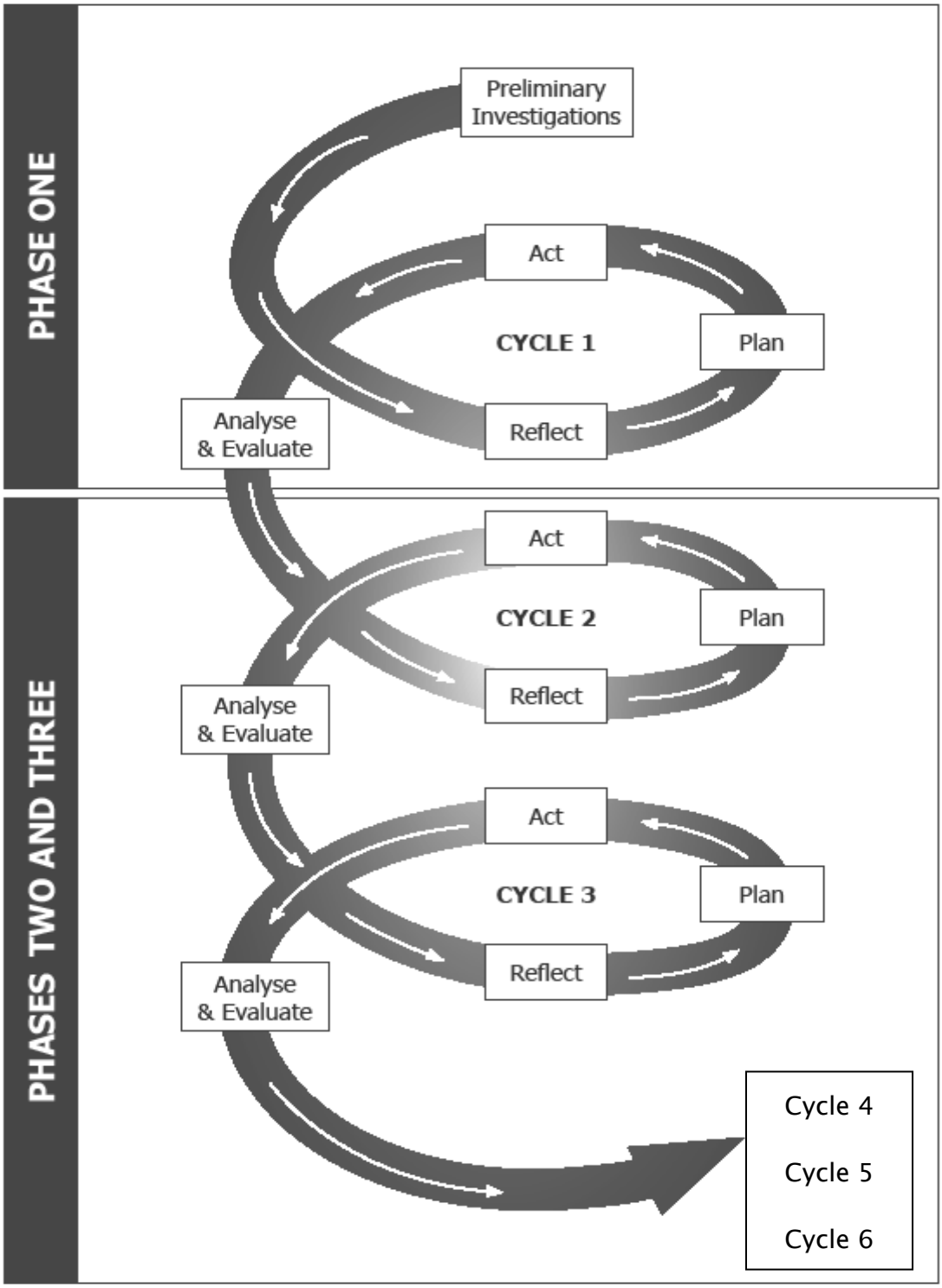

FIGURE 4.1 Action research cycles for the INHospital Study

The four key steps of the action research cycle used in the INHospital are explained in the following sections.

4.6.1 Plan

Plan is the first of the four key steps in the action research cycle[1, 25, 28]. The planning step provides a means for study participants to critically and systematically develop a prospective strategy for action[1, 10, 13, 25, 29, 30]. The plan needs to be realistic and flexible enough to adapt to unforeseen effects as these activities occur in dynamic environments. The presence of a clearly defined plan is important as it empowers participants to collaborate towards achieving sustainable change[1, 10, 13, 25, 29, 30].

4.6.2 Act

The act step is guided by the previous planning step and, as such, is critically informed by participants[1, 25, 28]. Action is intentional and strategic, with participants understanding its implementation and agreeing on an intended length of time for analysis and collection prior to the commencement of action[25, 29].

Action is used as a platform for present and future action and takes place within contextual constraints[25, 29]. Intentions in this step of the action research cycle are dependent on the number of times the cycle is used. For instance, the first time participants move through the action research cycle the kind of fieldwork performed is very different to the fieldwork and data collected on subsequent iterations of the research cycle[1, 10, 25, 28]. Many methods of data collection can be used in the first cycle and subsequent iterations such as surveys, interviews, observations and collaborative group process.

4.6.3 Analyse and evaluate

A key characteristic of action research is that events and actions are observed as part of the cycle, and evidence is collected so the researcher can analyse it thoroughly, draw conclusions, evaluate and provide feedback[1, 10, 25, 28]. This step of the action

research cycle offers opportunities for understanding the aetiology of events and subsequently contributes to participant understanding. At this juncture, it is possible to consider different options to improve practice change[10, 13, 28, 30, 39].

4.6.4 Reflect

The reflect step of the action research cycle is constantly evolving, utilising further investigation of research literature, personal/professional experience, and emerging conceptual models. Reflection is essential to guide future strategic action, as it enables participants to make sense of processes, problems, issues and constraints that have occurred throughout the previous steps of the cycle[1, 10, 28]. Group reflection enables participants to investigate what is working well and what is not and seek explanations as to why[1, 10]. This process provides the basis for the revised plan[8, 13, 25, 29].

In summary, each of these steps in relation to the INHospital Study were undertaken collaboratively by the participants and researcher in the action research cycle. These steps are not stagnant rather they are completed in a dynamic, fluid motion.

4.7 MIXED METHODS TO ENHANCE DATA INTEGRITY AND QUALITY

This section presents the methodological considerations for mixed methods methodology for the INHospital Study. The first chapters of this thesis have provided the reader with a clear audit trail for the INHospital Study from the literature review that has explored evidence-base practice in the care of the older person in the acute care setting. This section is specific to mixed methods for data collection used under the umbrella of action research.

The term '*mixed methods*' describes research which utilises both qualitative and quantitative data collection and analysis techniques in either parallel or sequential phases[40]. Mixed methods of data collection were employed in the INHospital Study in order to measure the phenomenon of interest as well as achieve illumination of key constructs such as satisfaction with care. This provided an inclusive, multifaceted perspective of the acute hospitalised older person, and allowed the researcher greater insight and an enriched appreciation of the patient and their context[41].

Nursing and health care environments use and apply mixed methods research approaches[42]. The INHospital Study is a three-phase study which used mixed methods embedded within action research. Both quantitative and qualitative methods were used in the study design in a concurrent, complementary fashion. This strategy was used to increase the clarity in the presentation of findings and should not detract from the process. In contrast to traditional positivistic methods it is important to note that the purpose of measurement and evaluation within this study design was to monitor the **impact** of the intervention and to **inform** and **guide** the reflective and iterative design of the intervention.

Both qualitative and quantitative data were collected as complementary methods and analysed using the principles of mixed methods to achieve convergence, confirmation and explanation of study findings. Neither method was considered to be superior or designed to substitute for the inadequacy of either methods. Rather, data collection occurred in a reflexive process in line with the action research framework discussed above and throughout this thesis. Table 4-1 describes the strengths and weaknesses of the mixed methods approach.

TABLE 4-1 Strengths and limitations of Mixed methods research (adapted from Johnson[43]).

Strengths	Weaknesses
• The use of narratives pictures and words, to add depth and meaning to numbers. (numbers can be used to add accuracy to narratives, pictures and words). • Enables broader ranges of research questions to be answered, the confines of the methods are flexible as it uses the strengths of both quantitative and qualitative research. • The strengths of one research method can be used to override the weaknesses in another. • Convergence and corroboration present stronger evidence for conclusion of findings, which offers more complete knowledge to inform theory and practice. • Adds insight/understanding often missed when using one method. • Generalisability of the results.	• Time consuming and expensive process • Can be difficult for a single researcher to carry out both research methods • The researcher has to learn in-depth about multiple methods, approaches and how to apply them appropriately • Arguments for and against from methodological purists. • Because of the contemporary nature of mixed methods some detail remains to be worked out fully by research methodologists.

As demonstrated in Table 4-1 one of the strengths mixed methods offered the INHospital Study was the use of qualitative and quantitative methods for data collection. For example the quantitative data collected through the Caregiving Activity Scale surveys[44] (discussed in this chapter) aimed to gain added depth, meaning and completeness through the collection of qualitative data, such as in the action research processes, open ended questions and semi-structured interviews. These complementary methods enabled, expanded and elaborated on the findings, this is not possible with a single method/theory research. This convergence and corroboration presents stronger evidence for conclusion of findings, and completeness of knowledge to inform practice[23]. A mixed method approach to data collection and analysis can overcome the inherent limitations that are presented in a singular theoretical or methodological approach[36, 45].

4.8 RELIABILITY, VALIDITY, GENERALISABILITY

The INHospital Study adopted an audit trail and several other mechanisms such as peer review, discussion, research team collaboration/member checking and long lasting commitment to confirm reliability and validity. These are explored in further detail below.

Reliability is concerned with the level to which researchers achieve like measurements when they repeat the measurement task. Validity measures whether the measurements obtained are the appropriate measurements for the study[46]. The terms validity, reliability, generalisability and rigour are considered necessary for methodological rigour in quantitative methods, whereas concepts such as trustworthiness, authenticity, credibility and diversity of perspectives have been

adopted in qualitative methods[47-49]. Each of these approaches is appropriate to the methodological underpinnings of the research paradigm.

To establish rigour in mixed method research the qualitative and quantitative research methods used have to met different standards for assessment of rigour and be true to their own method[36]. The INHospital Study utilised mixed methods under the umbrella of action research. The researcher was aware of the validity, reliability, generalisability and rigour for both action research and mixed methods. The establishment of rigour in the INHospital Study was to ensure that the qualitative and quantitative research methods used have met different standards for assessment of rigour and are true to their own method[36].

In regards to the validity of action research in the INHospital Study, Waterman[50,p102] describes that one of the major indicators of validity in action research is

> "the dialectical process of action research which involves theory, research and practice increases understanding and abstraction of ideas alongside and between improvement in the real world".

In addition the practical approach of action research can deal with validity issues that are problematic to 'pure' qualitative researchers[15]. Bradbury[51, p454] in Table 4-2 has listed simple questions that action researcher can ask to ensure quality in action research.

TABLE 4-2 Issues as choice-points and questions for quality in action research[51, p454]

Is the action research:
• Explicit in developing praxis of relational participation?
• Guided by reflexive concern for practical outcomes?
• Inclusive of a plurality of knowing?
• Ensuring conceptual-theoretical integrity?
• Embracing ways of knowing beyond the intellect?
• Intentionally choosing appropriate research methods?
• Worthy of the term significant?
• Emerging towards a new and enduring infrastructure?

Rigour in the qualitative paradigm incorporates both the concepts of validity and reliability[49, 52]. Many of these researchers consider that the concept of reliability should be based on vigilance, consistency and care in data collection and analysis. Although the application of the notion of reliability and validity as a measure of rigour in qualitative research has been questioned and the transferability to the qualitative paradigm has been questioned[52-54].

Trustworthiness occurs when the research is conducted using ethical values and the findings are concordant with the experiences, values, beliefs and opinions of the study participants[47, 55]. For instance in regards to action research participant validation occurs as a check of the trustworthiness of the research[47]. Qualitative researchers use a range of approaches to enhance the credibility of study data. Credibility is said to occur when data has been reported truthfully and the research is said to be trustworthy[55]. Some of these processes include searching for divergent cases, review by study participants (members check), implementation of an audit trail, rich and thick description, and methodological triangulation of method, data

sources, analysis techniques and theoretical approaches[48, 49]. Presented below are some of the processes the INHospital Study utilised.

4.9 PEER REVIEW/DISCUSSION

As part of the doctoral process, this study has to be regularly presented and examined at research forums, and confirmation of candidature through the UWS School of Nursing. These processes ensure this study is reviewed and examined regularly by Dean of research, research supervisors, academics from UWS, visiting scholars, experts in the field and fellow higher degree research students. This is important as to ensure that the required level of rigour is maintained[56]. It also offers opportunities for the researcher to gain valuable feedback and check the developing insights[57]. Furthermore, the INHospital Study has been presented at international and national conferences and published in a variety of peer reviewed journals please see Publication and conference list on p.viii.

4.10 RESEARCH TEAM COLLABORATION AND MEMBER CHECKING

In order to ensure the rigour and credibility of the study data the research team re-examined the study data, emergent themes and analysis. In addition, key informants and research associates provided comment on findings, individually and/or in a group during formative or summative stages of the study. Project team members were consulted to ensure issues of accuracy, completeness, fairness, credibility, clarity and richness of recorded comments and observations were discussed. Member checking facilitated exploration and elucidation of study themes.

In qualitative research, confirmability refers to the capacity of the study findings to represent the phenomenon of interest rather than the researcher's biases and assumptions[49]. The researcher's background, role in the action research process,

assumptions and potential biases have been described in Chapter one, which increases the confirmability of the study findings. Respondent verification was also undertaken to facilitate confirmability. A journal was maintained throughout the study and was used to assist in not only data interpretation but also planning and reflecting on the action research processes. The term dependability refers to the likelihood of others coming to the same conclusions as the researcher[49]. In this study dependability was achieved through strategies such as audio-taping, journaling and dialogue and interaction among the study team.

The long-lasting commitment of the action research framework within the broader context of a doctoral project has allowed the researcher to immerse herself for a prolonged period in the context of an acute aged care ward. This outlay in time produced a comprehensive understanding of the participants involved and enhanced the quality of data collection[56].

4.11 METHODOLOGICAL ISSUES RELATING TO THE INHOSPITAL STUDY: STUDY PHASES

The INHospital Study was conducted over three years in three phases. The INHospital Study within an action research framework employed mixed methods of data collection to enhance data integrity and quality. Figure 1.2 in Chapter One describes the three discrete but interrelated study phases.

4.12 PHASE ONE

Phase one of the study introduced the INHospital Study and the action research processes. Three groups of research participants were recruited: (1) patients meeting the inclusion criteria; (2) carers who visited patients on a regular basis; and (3) nurses who were employed in the secure acute aged care wards. Patients, carers and

nurses were surveyed to identify the levels of importance placed upon different types of nursing care. Issues related to study participants are described below. Following a consultation process with ward staff, semi-structured interviews were also conducted with a subset of patients and their carers to further probe the issues raised during the survey. Through out the INHospital Study there was informal involvement from other members of the multi disciplinary team, such as the physiotherapist, social workers and pharmacists.

4.13 STUDY SETTING

The study setting for Phase One was five secure acute aged care wards within tertiary teaching hospitals located in the Sydney metropolitan region. These secure wards (safety gate at entry) have been established to safely house older people with delirium, dementia and confusion who need acute care. These wards are commonly structured to provide a safe environment for patients, for example reducing falls risk. As is common in the NSW public hospital system, these secure wards were staffed predominately by registered nurses, with a smaller number of enrolled nurses. A multidisciplinary acute aged care team oversees the management of patients within each of the wards. The staff ratios in the study setting varied according to the facility, shift and staff availability. The ratio ranged from five to twelve patients per registered nurse. Often the registered nurse worked collaboratively with an enrolled nurse. Some nurses within the study wards were either agency or casual pool nurses, reflecting the trend of a national nursing shortage[58]

4.14 STUDY SAMPLE

4.14.1 Patients

Inclusion criteria for selection of patients included 1) hospitalisation in acute aged care ward for more than two days and aged 65 years or older, 2) hospitalisation for an acute illness (not purely rehabilitation or terminal illness), 3) Absence of mental illness or severe cognitive impairment, (such as severe Alzheimer's disease, multi-infarct dementia, clinical depression or psychosis) and a Mini Mental State Examination[59, 60] score > 19 and 4) and ability to provide an informed consent and willingness to participate.

The Mini-Mental State Examination [MMSE] scale[59, 60] and Barthel Activities of Daily Living [ADL] Index[61] were used to assess patients' cognitive status, levels of functional activity and capacity to participate in the study. The characteristics of each instrument are specifically discussed below. These two validated assessment tools were employed to select eligible patient participants. Selection was undertaken by the researcher in conjunction with the nursing unit manager, clinical nurse consultant, pharmacist, nurses, physiotherapist, social workers and doctors.

Once eligible participants were identified, the researcher introduced herself and briefly explained the study purpose and procedure and gave the participants a copy of the study information sheet. Participants were reassured of their rights in relation to ethical guidelines. Any questions raised were answered before gaining written informed consent. Once informed consent had been obtained, the researcher sat with the participant to read through the The Caregiving Activities Scale [CAS][44] survey. The questions were stated, repeated and clarified as required by the researcher. Probing was also used to expand on the semi-structured interview questions in order

to gain more understanding of the participant's responses and to allow them an opportunity to provide more depth to their responses. Often this process was very slow due to the need for communication in a clear, slow manner.

4.14.2 Carers

A carer was defined as the primary carer or family member for that individual who spent the most time at the patient's bedside during their hospitalisation. All carers were invited to contribute in cases where patients were not eligible. Patients and carers were not a dyad. Any consenting primary carer of the patient who spent time at the hospital was eligible to participate.

4.14.3 Nurses

All consenting, permanent registered nurses working in the selected wards were eligible for inclusion. Agency or relief staff were ineligible to participate, as they may not have had sufficient knowledge of patients to contribute in a useful way if only minimal time was spent on the ward.

The CAS survey was coded and administered to the nursing staff; it was collected in de-identified envelopes into a locked box in an office on the wards involved, with only the researcher having access.

4.15 RESEARCH INSTRUMENTS FOR DATA COLLECTION

4.15.1 Survey instrument as a method of data collection

The CAS survey[44] was used to identify older patients, carers and nurse perceptions of the importance and their satisfaction of aspects of nursing care. This tool was developed by White[44], using literature reviews as a theoretical basis, statements of nursing leaders and organisations, and studies on which activities constitute nursing

practice had been previously evaluated for reliability and validity[62, 63]. A pilot study was also undertaken as part of the larger collaborative group of which the INHospital Study was a distinct arm. The CASsurvey[44] was chosen for the INHospital Study following the pilot study, review of validated instruments and consultation with a panel of expert clinicians[64, 65]. This included nursing clinicians from four hospitals, two medical anthropologists, older consumers, a professor of multicultural health, geriatricians and staff from multicultural health units in two hospitals. Although this instrument was constructed in 1972 it was the consensus of the expert panel and research team that it was most suited to the study objectives and listed specific nursing activities that addressed specific nursing activities that are important to the patient rather than general caring statements.

The CAS survey has four sub-scales based on four aspects of nursing care. These subscales assess 1) psychosocial aspects (*n*=13), which includes those related to spiritual, divisional activities and emotional support; 2) physical care (*n*=21), which includes activities related to food, fluids, positioning, environment, exercise, rest, sleep, physical comfort and cleanliness; 3) implementation of doctor's orders (*n*=9), which consisted of observing, reporting and carrying out doctor's orders and initiating nursing treatments; and 4) discharge (*n*=6) statements, which related to continuity of care and assistance at home.

The CAS survey instrument[44] (Appendix 2) used 50 quantitative items. Each of the 50 survey questions had two five-point Likert scales for measurement (1 representing 'little' and 5 representing 'great'). One Likert scale measured the perception of levels of importance attributed to each item within the four main categories, as determined by patients, carers and nurses. The other Likert scale measured satisfaction levels in

relation to care priorities, with the ability and capacity for nurses to provide this care being assessed (for nurses 1 represents 'poor' and 5 represents 'great'). Under each of the CAS questions was the statement *'if not provided, then why do you think this was the case?'* This enabled participants to provide some explanation of their responses on the Likert scale.

At the end of the CAS survey there are two open-ended questions. This provides participants with an opportunity to expand on whether there were other aspects of nursing care that they perceived as important or unimportant for nurses to provide. The nurse's version of the scale also included two open-ended questions:

1. Do you think the nursing needs of patients differ in terms of ages (eg age less than 65 years versus 65 to 80 years, and 65 to 80 years versus greater than 80 years)? If so, in what ways do they differ?

2. If there are other aspects of nursing care you think are important for nurses to provide, please describe below

4.16 SURVEY SAMPLING

Participants were recruited for the study by the means of a convenience sample. A sample size of 56 was calculated to achieve a moderate effect size between Time 1 and Time 2 based upon the CAS survey.

4.16.1 Mini-Mental State Examination

Patients are routinely assessed for confusion states or 'delirium' on admission, using the valid scale MMSE [59, 60]. The MMSE is scored out of 30 and assesses orientation to time, person, place, memory and recall. Command following and object naming are also tested (Appendix 7).

The research team in consultation with an expert panel agreed that patients with delirium or with a cognitive status of less than 19/30 (as assessed by the MMSE)[59, 60] were considered unable to provide informed consent at the time of interview and should be excluded from the study. If delirium subsided during their stay (as assessed by the Clinical Nurse Consultant (CNC) in aged care), they were reassessed and subsequently invited to participate.

4.16.2 Barthel Activities of Daily Living Index

Barthel ADL Index[61] is a well-established valid and reliable tool[66] used to assess changes in activities of daily living between admission and discharge and to determine functional outcomes (Appendix 6). The Index is routinely used in patients with functional deficits and as a screening process to identify their level of functional capacity and abilities[61]. It involves assessing the patient's ability to complete activities of daily living using ten different levels such as continence status, mobility status, ability to transfer body weight and ability to feed oneself[61].

4.17 SEMI-STRUCTURED INTERVIEWS

Semi-structured interviews were conducted after completion of the CAS survey. This qualitative data aimed to probe more deeply into the patient's and carer's care priorities and satisfaction as measured in the CAS. It offered a depth not achievable with the survey alone. Eligibility and selection of participants were the same as for the CAS survey (described in Section 4.15.1). The semi-structured interviews were held in a private location in the ward, conducted face-to-face, and tape recorded for later transcription and analysis with the informed consent of the participant. The items generated for the interview schedule came from the literature review and key informant consultation. Data was collected until saturation was achieved and further

interviews yielded no new information[67]; the interview schedule is presented in Chapter Five.

Interviews are a commonly used strategy for collecting data. They are an important strategy for gathering information and obtaining understandings of a situation or phenomenon and can provide deep, rich and valuable information about beliefs, experiences, actions and social life[68, 69]. The interview process facilitates an interactive dialogue between the participant and researcher, allowing the revelation of information to address study questions or a phenomenon of interest[68, 69].

It is important when conducting qualitative research that the researcher is aware of her background, values, attitudes and beliefs that could influence data collection and interpretation of the study findings. The action research framework emphasises the importance of identifying the needs, opinions and values of participants as being of critical importance; these are described in Chapter One. The face-to-face, semi-structured interviews used in the INHospital Study were a useful strategy for eliciting information and guide and inform the action research process.

4.18 DATA MANAGEMENT AND ANALYSIS

4.18.1 Quantitative data

Quantitative data were analysed using SPSS® (Statistical Package for Social Sciences Version 11). Statistical significance of main comparisons and post-hoc testing (i.e. Scheffe test) was indicated by a *p* value of less than $p<0.05$. The statistical analyses used are described in sequential order as they were used in Phases One, Two and Three in Chapters Six and Seven. The statistical analyses included Analysis of Variance (ANOVAs), Multivariate Analysis of Variance (MANOVAs) and t-tests. Where ANOVAs and t-tests were used, underlying assumptions of equality of

variances, homoscedasticity and normality of distributions were addressed. Results were also checked with corresponding non-parametric testing.

4.18.2 Qualitative data

Qualitative data analysis involves making sense of data through the process of deconstructing, reconstructing and conceptualising information[49]. Qualitative data for the INHospital Study were analysed using the computer package NVivo, which allowed management of the data. NVivo has linking capacities and allows integration of data to handle multifaceted action research projects[70]. Data collection and analysis were conducted simultaneously in this study.

Qualitative data analysis was used to provide greater insight into the patients' perceptions of nursing care priorities and levels of satisfaction and to expand on the quantitative data results from patient and staff surveys. All additional qualitative data were derived from the action research process, which included field notes, minutes of staff meetings, focus groups and SWP discussions. These data were recorded and reviewed with themes and categories extracted and reflected upon, using NVivo as a tool for thematic analysis[70].

4.19 ETHICAL CONSIDERATIONS

Prior to commencing the study, ethics approval was obtained from all relevant research ethics committees in the health services where the study was conducted and the researcher's university. These committees addressed issues relating to potential distress for participants (Approval number HREC 00.11 University of Western Sydney). Participation was completely voluntary and participants were free to withdraw consent and cease participation in the study at any time. The researcher is an experienced clinician and has an understanding of the implications of conducting

research with this population group. Principles related to anonymity and confidentiality were closely observed and facilities were available to participants distressed by the study questions.

All participants (patients, carers and nurses) were provided with the Study Information Sheet and Consent Form (Appendix 4) in large print, if required. The contents were read to the participants by the researcher or an accredited bilingual health care worker if they were from a culturally and linguistically diverse (CALD) background and didn't speak English. A potential participant's decision not to participate was accepted immediately and no pressure was used to recruit them if they were unwilling, or too ill or tired. Study participants were assured that,

1. All information provided would remain confidential and identity would not be recorded on the survey;

2. Information regarding health status would be coded and any identifying information stored separately in a locked filing cabinet in the office of the researcher, and that no other person had access to this data;

3. If participants became unwell, tired or confused during data collection, the process would cease immediately, and if well enough and willing, the research process continued at a later time;

4. All survey and interview data and consent forms related to the participants were locked away in the office of the researcher, and that this was only accessible to the researcher; also that all data and information entered in the computer would be accessed via secure passwords and that the data would remain secure for seven years and then be destroyed; and

5. The same ethical principals were adhered to for nursing staff, and that the Clinical Nurse Consultant, Educator and Nurse Unit Managers had been involved in a consultation process before commencement to gain their understanding and co-operation for the study.

To promote anonymity, all data collection proformas were coded with a participant number. Only the principal researcher had access to the master list of participant names and numbers. This list was kept in a secure location in accordance with the NHMRC guidelines[71]. All data related to the study were kept at the University of Western Sydney and will be maintained by the researcher for the mandatory period of five years following the publication of results and then permanently destroyed.

4.20 PHASE TWO AND THREE

Phases Two and Three of the study were the continuation of the action research development and cycles as shown in Figure 4.1. This included the development (Phase Two) along with the impact and evaluation (Phase Three) of a tailored model of nursing care. Two groups of research participants were recruited: (1) patients meeting the inclusion criteria, and (2) nurses employed in the secure acute aged care ward.

4.21 STUDY SETTING

The study setting for Phases Two and Three was one of the five aged care wards that had participated in Phase One. The staff in this ward had volunteered to participate in Phases Two and Three and supported the use of action research as a conceptual framework to help improve patient outcomes in a collaborative fashion. This level of commitment from permanent ward nurses and support from senior management, combined with the momentum generated on this acute care ward during Phase One,

were the main reasons guiding the research team's decision to focus on this single ward for the remainder of the study. Factors such as resource availability and pragmatic constraints combined with the stability of the environment also were taken into consideration. These strategic decisions provided an opportunity for greater exploration and development of the model of care using action research processes.

After consultation with the Nurse Unit Manager [NUM], Educator, Clinical Nurse Consultant [CNC], Director of Nursing [DON] and the Divisional Director support was granted from all management. This ward specialised in treatment of people over the age of 65 years for acute illness and co-morbidities including those related to dementia. This ward was largely staffed with permanent registered nurses and a small number of enrolled nurses, with a combined total of thirty nurses. Few agency or casual staff appeared on the roster. The staff ratios in this ward were varied: from four to twelve patients per registered nurse depending on patient acuity. Occasionally, one-to-one nursing was required. A multidisciplinary team including staff geriatricians oversaw patient care Monday to Friday.

4.22 STUDY SAMPLE

The study sample consisted of two groups of research participants: nurses working in the study setting and patients over the age of 65 years, admitted to the ward. The inclusion criteria for the selection of patients and nurses in Phases Two and Three remained as described above for Phase One.

4.22.1 Patients

The inclusion criteria described in Section 4.15.1 for patients were unchanged for Phases Two and Three of the INHospital Study. The MMSE and Barthel ADL Index used to screen patients in Phase one were also used in Phases Two and Three.

4.22.2 Nurses

All permanent registered nurses working on the participating ward were approached to participate in the study. Agency or relief staffs were not included for the reasons given above. A SWP was formed and six registered nurses and one enrolled nurse consented to participate with the full co-operation and collaborative support of the Nurse Unit Manager, the Nurse Educator and management. A large majority of the 29 permanent nursing staff participated, using action research to develop the model of nursing care.

4.23 DATA COLLECTION AND RESEARCH INSTRMENTS

Data collection during Phases Two and Three included data from the CAS, field notes, personal journal and the minutes of the SWP. Each of these is described separately below.

4.23.1 CAS survey

The CAS survey used in Phase One was used again in Phases Two and Three. There was one major modification to the CAS in Phases Two and Three (Appendix 5), with only the satisfaction component of the CAS being administered. The rationale was that the purpose of collecting these data for the INHospital Study was to evaluate whether there was an increase in the nursing staff's perceived ability to meet the priorities and health needs of older patients, and whether the model of nursing care improved patients' satisfaction.

4.23.2 Medication regime assessment tool

This seven-item medication regime assessment tool (Appendix 8) was used to assess a patient's knowledge of their medications on admission and levels of knowledge before discharge. A four-point Likert scale was used to measure the administration of

medications by older patients. The tool assisted patients and the nurses in identifying the patient's level of preparation for managing their medications upon discharge, thereby alerting nurses to their need for further medication education.

4.23.3 Discharge checklist tool

At the time of the INHospital Study a new discharge planning form was being implemented by the hospital across all areas of care. Given the improvements in the new form, the nurses designed a discharge checklist tool (Appendix 9) to complement the current discharge planning form. This tool aimed to improve the communication processes involved in discharge and to facilitate the nurses' ability to focus on the patient's and carer's discharge needs.

4.23.4 Barthel ADL Index

Barthel ADL Index[61] was used to assess patients' level of their functional need on admission to the ward and provide a baseline for changes in activities of daily living.

4.23.5 Mini-Mental State Examination

The MMSE [59, 60] was used in Phases Two and Three as a screening tool for patients. Patients are routinely assessed for confusion states or 'delirium' on admission, using the valid scale MMSE[59, 60].

4.23.6 Field notes and personal journal

Researcher field notes were recorded and referred to throughout the action research cycle to help identify and clarify the issues raised by participating nurses and the SWP. These data document the different themes, issues and concepts that arose from direct observation of nursing processes and clinical data and from discussions and meetings with participants[10, 25]. These data focus on attaining a clear contextual

understanding of the environment in which the action research process has occurred and the actions taken by the ward staff in developing the model of care.

The researcher maintained a journal throughout the study to record personal reflections on the interactions occurring between participants as they moved through the phases of the action research cycles. The researcher's personal journal provided an avenue for self-reflection and was used for the purpose of recording feelings about the meetings, the process and the difficulties and successes during the process.

In order to develop the model of care according to action research principles these field notes and reflections were critical in the development and conduct of the project.

4.23.7 Minutes of SWP

The researcher documented minutes of meetings of the SWP. These minutes were placed in a specially marked folder and left at the nurses' station to ensure that all nurse participants had access to information on the progress achieved during the action research process. This assisted with communication between nurse participants and the researcher and provides the basis for discussions throughout the research period.

4.24 DATA MANAGEMENT AND ANALYSIS

Data analysis for Phases Two and Three used the same methods as discussed for Phase One. Each method of data is analysed using the appropriate analysis that is true to that method[36, 45]. Data management and analysis of the quantitative data collected in Phases Two and Three remained the same as that described for Phase One in Section 4.19.

In addition to the data management and analysis described for Phase One, the qualitative data from the field notes were completed in a systematic way, with key domains recorded and the action research experiences of staff and the researcher examined. As main aspects, including gaining staff interest and involvement in the study, were identified they were grouped into the main categories. These categories were further grouped into themes, and the statements that best exemplified these categories were written alongside them for clarification. After the themes were compared, a storyline emerged which helped to explain and locate the participants' experiences throughout the action research process.

4.25 SUMMARY

In this chapter a historical perspective of action research has been provided. The strengths and use of action research for the INHospital Study, with specific reference to how the INHospital Study will drive clinical change using concepts such as collaboration, empowerment and sustainability have been identified. The limitations of using action research have been explored, and suggestions on how the INHospital Study sought to overcome these limitations have been made. The action research process as implemented within the INHospital Study has been described, which includes the four steps within the action research cycle: *plan, act, analyse and evaluate, reflect*. The philosophical underpinnings of the INHospital Study have been explained, and the rationale for utilising a mixed method approach to enhance data integrity and quality have been examined under the umbrella of action research.

In addition, this chapter has presented the chosen methodological approach to both drive and evaluate the action research methods. There are some challenges in ensuring methodological rigour within the dynamic process of the action research

cycle and to meet these, the researcher strove to achieve methodological rigour by regarding each element of the research process as a discrete element and observing paradigm specific elements, yet synthesising study findings to inform the action research process. Action research offers a process of empowerment to assist nurses to understand their environment so change processes can occur[10, 25]. In the following chapter Phase One of the INHospital Study and findings are presented.

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Chapter Five
Phase One of the INHospital Study Needs Assessment

5.1 Introduction

This chapter presents Phase One of the INHospital Study. Two action research cycles made up the Phase One needs assessment: Cycle one involved introducing the project and gaining collaboration, which included introducing the INHospital Study, while cycle two focused on scoping the problem and planning the INHospital Study setting. A continuing helix depicts the INHospital studies action research processes (Figure 4.1), with *reflect, plan, act, analyse and evaluate* being evident in each action research cycle as four discrete steps. The presentation of Phase One findings and discussion as two discrete cycles is not intended to detract from the cyclical, iterative nature of the action research process, but rather to provide greater clarity for the reader. Table 5-1 below presents the data collection methods utilised in Phase One for action research cycles one and two.

TABLE 5-1 Data Methods for Phase One

Phase	Rationale and description	Methods
Phase One	Baseline assessment of care priorities and perceptions of satisfaction of patients, carers and nurses	Action research processes Literature review Survey Semi-structured interviews

5.2 Cycle one – setting the scene

The action research framework described in Chapter Four has been instrumental in the conduct and evaluation of the INHospital Study. The four steps in the action research cycle provide a systematic plan for participants, where issues or discrepancies could be clearly identified and reflected upon. This is one of the major differences between action and action research[1-6]. These concepts in Phase One are an essential component to set the scene and scope the problem of the INHospital Study setting.

5.3 Orientation to action research

Within a continuing helix, the action research cycle has four steps which are presented in Figure 4.1 (See Chapter 4). This helix and the internal action research cycles are used in Phases One, Two and Three numerous times for collaborative development and refinement of the model of nursing care.

5.3.1 Undertaking Action Research Cycle One

During the first action research cycle the reflect stage provided the acute aged care nurses with an orientation to action research and allowed for exploration of the study aims. A variety of stakeholders participated in the first action research cycle: aged care patients and their family or primary carers and nurses in five acute aged care

wards from five metropolitan hospitals. These participants participated in the CAS survey[7][8], which intended to reveal the priorities and assessed levels of satisfaction with care provision. The CAS survey set the scene through providing a needs assessment and evidence to inform the model of nursing care development. The researcher's role was to collate the CAS surveys, analyse and identify areas in need of change, then disseminate these findings back to the acute aged care wards that participated.

Initially planning focused on the overall aims and the introduction of action research. This included several education sessions run by the researcher with all acute aged care nurses on the involved wards. The participants and the research team identified the following aims:

1. Undertake a systematic, multifaceted needs assessment of the care of older patients in acute aged care wards;

2. Specifically in Phase One, introduce action research and education of nurses about the nature and implementation of action research;

3. Identify the care priorities of the three participant groups: patients being cared for in acute aged care settings, their carers and nurses providing care; and

4. Explore the level of satisfaction of patients being cared for in acute aged care settings, their carers and the nurses providing care with these care priorities.

The action and fieldwork stage of data collation and analysis of the CAS survey was undertaken to make available data from the needs assessment to the nurses

participating in the INHospital Study. To obtain a comprehensive view of care issues, the CAS was administered to three participant groups:

1. Patients being cared for in aged care acute care settings (*n*=78);

2. Family members/carers who visit acute aged care patients on a regular basis (*n*=45); and

3. Nurses working in acute aged care wards (*n*=37).

5.4 Identified evidence to drive practice change

This section reports data relating to key elements informing intervention development. The differences between needs and expectations of patients, carers and nurses as documented by the CAS are reported below.

5.4.1 CAS scoring and analysis

In total the CAS contained 50 questions on two 5-point Likert scales; the Likert scales rated particular aspects of nursing care priorities and satisfaction with the care priorities. Participants were also given the opportunity to write comments in addition to the questionnaire responses as two open-ended questions were provided at the end of the CAS; these findings are described below. The CAS was broken down into four categories: physical, psychosocial care, implementing doctor's orders and discharge planning. Initially the four categories were analysed and subsequently the three participant groups in each of these categories. Mean scores were calculated for each item in the CAS, which were rank-ordered to ascertain levels of importance on each item in the four categories. The items of the CAS were summed to provide a mean

score for each of the four categories as it was not practical to compare the individual categorical items[8-10].

To determine overall differences between the three groups (patients, carers and nurses) on the four categories of the CAS combined, a 2 (groups) by 2 (categories) analysis of variance (ANOVA) was performed on a) importance and b) satisfaction ratings. Following significant overall findings, one-way between subjects ANOVA tests were performed to determine group differences between each of the four categories. One-way between subjects ANOVAs were also performed in each group to determine the relative importance of each category. To lower the likelihood of committing a Type 1 error[11], a Bonferroni correction was applied of p=0.01 to follow up F tests (0.05 divided by the number of dependent variables). Post-hoc comparison of means test using the Scheffe procedure was applied to identify the variables involved when the ANOVA revealed significant effects. This conservative test lowers the likelihood of committing a Type 1 error[11].

5.4.2 Needs of older people and their carers

The findings from the CAS are described below. A one-way multivariate ANOVA test was performed to determine whether there were significant differences between patients, carers and nurses on the four selected categories. Table 5-2 below lists the means, ranges and standard deviations for the four categories of importance for each group. Results demonstrated significant differences between the three groups on importance overall (Wilkes' lambda=0.791, df=8,308, p<0.001). Follow-up one-way ANOVA tests were then performed to determine in what categories significant differences occurred between patients, carers and nurses; see Table 5-3 for a summary of these results.

TABLE 5-2 Differences between patients, carers and nurses

Variable	Importance			Satisfaction		
	Mean	Range	SD	Mean	Range	SD
Physical care						
Patient	4.2	3-5	0.5	4.0	3-5	0.6
Carer	4.4	2-5	0.6	3.8	4-5	0.8
Nurse	4.5	3-5	0.5	3.9	2-5	0.6
Psychosocial care						
Patient	3.7	1-5	0.7	3.4	3-5	0.7
Carer	4.1	1-5	0.6	3.4	4-5	0.8
Nurse	4.4	2-5	0.5	3.5	3-5	0.6
Doctor's orders						
Patient	4.7	3-5	0.4	4.5	2-5	0.6
Carer	4.8	3-5	0.3	4.3	3-5	0.7
Nurse	4.7	3-5	0.3	4.2	2-5	0.5
Discharge						
Patient	3.5	0-5	1.1	2.9	0-5	1.2
Carer	4.1	1-5	1.0	3.2	0-5	1.4
Nurse	4.4	3-5	0.6	3.2	4-5	0.9

5.4.3 Importance Scores of Patients, Carers and Nurses

Figure 5.1 below demonstrates the importance of scores from the CAS for patients, carers and nurses. In addition, the results for each category of importance are described below in detailed.

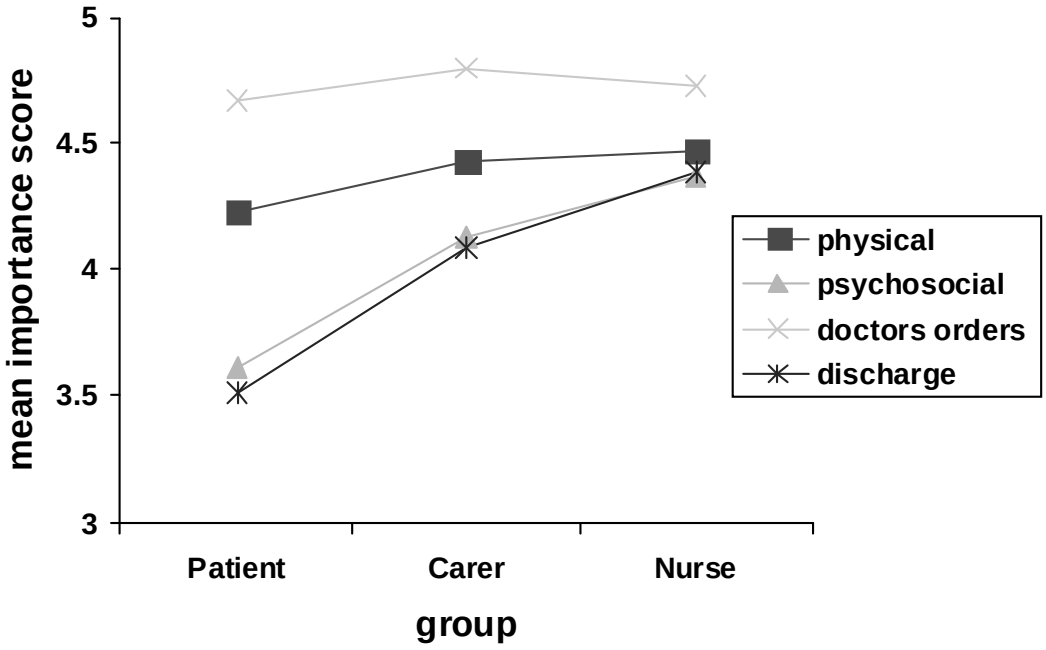

FIGURE 5.1 Differences between carers, nurses and patients on importance scores

5.4.4 Category one: physical care

There were significant differences between the three participant groups on the importance of physical care ($p<0.05$). Post-hoc tests showed no significance between the three groups. As seen in Figure 5.1, all three groups gave mean physical care ratings of at least four, indicating that, on average, they perceived this aspect of care to be important.

5.4.5 Category two: psychosocial care

There were significant differences between the three groups on the importance of psychosocial support ($p<0.001$). Post-hoc tests showed that nurses gave significantly higher importance ratings to psychosocial care compared with patients but similar ratings to carers ($p<0.001$). As seen in Figure 5.1, nurses and carers both rated this category highly in terms of importance, while patients rated it as moderate to high.

5.4.6 Category three: doctor's orders

There were no significant differences between the three participant groups in relation to observing, reporting and implementing doctor's orders, as seen in Figure 5.1. All three groups gave mean ratings of at least four, indicating that, on average, they perceived this aspect of care to be important.

5.4.7 Category four: discharge

There were significant differences between the three participant groups on discharge planning ($p<0.001$). As seen in Figure 5.1, patients rated discharge planning as moderately important, which was significantly lower than nurses' ratings ($p<0.001$) and carers' ratings ($p<0.05$). Nurses rated discharge planning highly in terms of importance, followed by carers who rated it moderate to high. Nurses and carers were similar with no significant differences. Patients showed significant differences, with a significantly lower mean of 3.51 in terms of importance.

5.4.8 Four categories on importance and satisfaction

Table 5-3 illustrates the summary of ANOVA results comparing differences between the four categories on importance and satisfaction.

TABLE 5-3 Summary scores between the four categories on importance and satisfaction

Source	MS Effect	df	MS Error	F	p
Physical care					
Importance	0.95	2,157	0.28	3.42	<0.04
Satisfaction	0.47	2,157	0.47	0.996	<0.37
Psychosocial care					
Importance	6.53	2,157	0.41	15.73	<0.001*
Satisfaction	0.18	2,157	0.53	0.35	0.71
Doctors' orders					
Importance	0.25	2,157	0.13	1.89	0.15
Satisfaction	0.92	2,157	0.39	2.35	<0.099
Discharge					
Importance	11.12	2,157	1.06	11.06	<0.001*
Satisfaction	1.64	2,157	1.45	1.14	<0.33

Note: *significant at p<0.001

Table 5-4 reports the summary of ANOVA results comparing differences in each group of participants on the four categories on importance and satisfaction.

TABLE 5-4 Differences in each group on the four categories on importance and satisfaction

Source	MS Effect	df	MS Error	F	p
Importance					
Patient	21.53	3,231	0.29	71.83	<0.001*
Nurse	1.04	3,108	0.07	14.38	<0.001*
Carer	4.77	3,132	0.30	15.63	<0.001*
Satisfaction					
Patient	33.96	3,231	0.38	88.67	<0.001*
Nurse	6.77	3,108	0.16	42.16	<0.001*
Carer	9.47	3,132	0.48	19.56	<0.001*

Note: *significant at p<0.001

5.4.9 What patients rated as important

As seen in Table 5-4, there were significant differences in the patient group on their ratings of importance for physical care, psychosocial care, implementing doctor's orders and discharge planning (p<0.001). Post-hoc comparisons showed that

doctor's orders were rated highest, and significantly higher than physical care ($p<0.001$), psychosocial care ($p<0.001$) and discharge ($p<0.001$). Physical care, the second-highest rating, was significantly higher than the psychosocial ($p<0.001$) and discharge planning categories ($p<0.001$). Doctor's orders and physical care were both rated over four whereas psychosocial and discharge planning rated less than four as seen in Figure 5.1.

5.4.10 What carers rated as important

There were significant differences in the carers group on their ratings of the four categories ($p<0.001$). Mean comparisons showed that doctor's orders were rated as most important. This category was significantly higher than physical care ($p<0.001$), psychosocial care ($p<0.001$) and discharge planning ($p<0.001$). Physical care was rated significantly higher than psychosocial ($p<0.01$) and discharge planning ($p<0.001$). Figure 5.1 shows that doctor's orders were rated of great importance and discharge was least important. Psychosocial care and discharge were rated similarly as having moderately high importance. All categories were rated over four, indicating they were all considered important.

5.4.11 What nurses rated as important

There were significant differences in the nurse's group on their ratings of the four categories ($p<0.001$). The doctor's orders category was rated most highly and was significantly higher than the other three areas ($p<0.001$). The other areas (physical care, discharge and psychosocial care) were rated similarly in terms of importance, with psychosocial care rated the least important, and physical care and discharge planning rated similarly. As all categories were rated over four, they were all considered important.

5.5 Satisfaction scores for patients, carers and nurses

Mean scores for satisfaction in each category are shown in Table 5-2. A multivariate ANOVA test was performed, as completed for importance, to determine whether there were significant differences between patients, carers and nurses in the four categories of satisfaction (physical, psychosocial, doctor's orders and discharge) combined. Patients and carers were asked to rate satisfaction while nurses' satisfaction was measured in terms of satisfaction with their 'opportunities to provide care' for each item. Results demonstrated significant differences between the three groups on satisfaction (p<0.001). Follow-up one-way ANOVA tests were therefore performed on the individual categories to determine whether there were differences between the three participant groups.

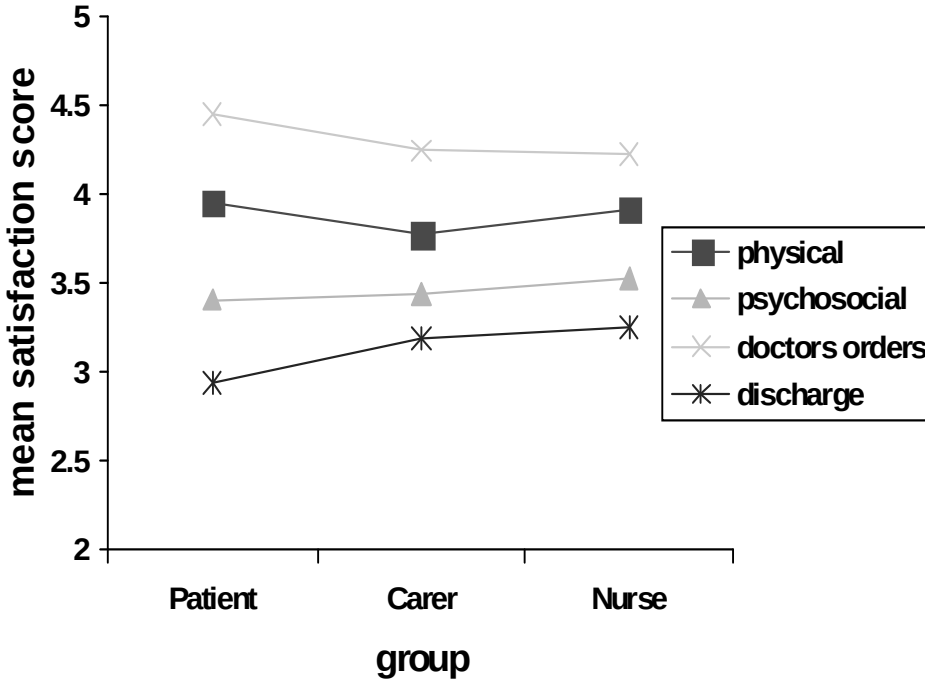

FIGURE 5.2 Differences between carers, nurses and patients on satisfaction scores

5.5.1 Category One: Physical care

As seen in Table 5-3, no significant differences were found between the three groups on physical care satisfaction ratings. As seen in Figure 5.2, patients, carers and nurses gave similar satisfaction ratings.

5.5.2 Category Two: Psychosocial care

There were no significant differences between the three groups on psychosocial satisfaction ratings; see Table 5-3. As seen in Figure 5.2, all participant groups gave moderate ratings of satisfaction in this category.

5.5.3 Category Three: Doctor's orders

There were no significant differences between the three groups on satisfaction with nurses carrying out doctor's orders (see Table 5-3). Figure 5.2 shows that all participant groups gave high ratings of satisfaction with this category.

5.5.4 Category Four: Discharge

There were no significant differences between the three participant groups on satisfaction with discharge-related care. All means were rated moderately, as shown in Figure 5.2.

5.5.5 What patients were satisfied with

Table 5-4 shows the significant differences found in categories for patients' satisfaction ($p<0.001$). Figure 5.2 also shows that doctor's orders were rated most highly in terms of satisfaction and were rated significantly higher than the other three categories. Discharge planning was rated lowest by patients and was significantly lower than all other three categories ($p<0.001$).

5.5.6 How carers rated satisfaction

As shown in Table 5-4, significant differences were found for carers' satisfaction. Carers were most satisfied with doctor's orders, which was significantly higher than the other three categories ($p<0.001$). Physical care was rated the next highest, and was rated significantly higher than discharge planning ($p<0.001$) but not psychosocial care. Carers were least satisfied with discharge; this was significantly lower than the other three ratings ($p<0.001$).

5.5.7 What nurses were satisfied with

Significant differences were found for nurses' satisfaction in terms of 'opportunities to provide care', as shown in Table 5-4. As shown in Figure 5.2, doctor's orders were rated highest and were significantly higher than the other three categories ($p<0.001$). Physical care was rated next highest and rated significantly higher than psychosocial care and discharge planning. Psychosocial care was also rated significantly lower than doctor's orders ($p<0.001$) and physical care ($p<0.05$). Thus, nurses reported that they were most satisfied with their opportunity to carry out doctor's orders followed by providing physical care. They were least satisfied with their opportunity to provide discharge-related care, followed by psychosocial care.

5.6 Ranking of care priorities

After identification of the four categories, the CAS was broken down into specific questions so singular aspects of care could be identified and any disparities between groups discussed. The ranking of these care priorities (importance) are described below. Column A in Table 5-5 below lists elements in nursing care that patients rated as most important while Column B rates the nursing care elements that patients were most satisfied with. The lists below were based on a cut-off mean score of four or

greater, as this was seen as important. Items are presented in rank order of their mean scores (highest to lowest).

TABLE 5-5 Patients' ranking of care priorities

Column A – Importance	Column B – Satisfaction
Nurses making them feel that they are happy to care for them	Having a clean and tidy bed unit
Nurses checking on bowel function and reporting problems to the doctor	The carrying out of doctor's orders – check meds on time?
Getting prescribed medications on time	Provided with privacy during personal care
A clean and comfortable bed	Having temperature and pulse taken
Nurses carrying out doctor's orders	Providing a comfortable pleasant environment
Nurses noticing when patient is in pain and giving pain-relieving medication	Nurses making patient feel they are happy to care for them
A clean and comfortable environment	Checking on bowel functioning and reporting any problems to doctors
Helping the patient maintain or restore normal elimination	Being provided with a clean and comfortable bed
Nurses observing changes in patient's condition and reporting these to the doctor	Making sure that the patient has the necessary equipment – glass, towel
Nurses observing the effects of treatments ordered by the doctor	Clean and tidy unit

In Table 5-6 below Column A identifies areas of care that patients were not satisfied with and Column B identifies areas of care that nurses have less opportunity to provide (i.e. patient importance vs. nurses' satisfaction).

TABLE 5-6 Prioritisations of satisfaction

Column A Care that patients were not satisfied with	Column B Care that nurses felt they had less opportunity to provide
Teach the patient about the medications he/she will be taking at home	Teach the patient about the medications he/she will be taking at home
Take time to talk with the patient's family and answer their questions	Make the patients feel I am happy to care for him/her
Assisting the patient with mouth and teeth care	Notice when the patient is in pain and give medication as ordered
Help the patients with grooming, hair, nails and shaving	Be understanding when the patient is irritable and demanding
Explain about diagnostic tests ahead of time so that the patient will know what to expect	Plan the patient's care so that he/she will be able to rest while in hospital

Listed below is an example of the disparity between patients and nurses perceptions. Patients were highly satisfied with care relating to prescribed medications been given on time, been provided with a comfortable, pleasant environment (suitable temperature, free from odours and disturbing noises) and ensuring that the unit is clean and tidy, while nurses did not rank these tasks highly and were not satisfied that they had the opportunity to provide adequate care in these three areas.

TABLE 5-7 Top ten most important priorities for nurses in aged care areas (Column A) vs. care that nurses have the most opportunity to deliver in aged care areas, in order of priority (Column B)

Column A Nurses' important priorities	Column B Care delivery nurses were satisfied with
Observing changes in the patient's condition and reporting these to the doctor	Observing changes in the patient's condition and reporting these to the doctor
Providing a bedpan/urinal when needed	Providing privacy during personal care
Providing privacy during personal care	Providing a bedpan/urinal when needed
Noticing when patient is in pain and giving pain-relieving medication	Carrying out doctor's orders
Taking special care of patient's skin so it does not become sore	Bathing/showering the patient
Helping patient to restore or maintain elimination	Providing patient with a clean and comfortable bed
Checking on patient's bowel function and report problems to the doctor	Check on bowel functioning and report to the doctor
Taking time to listen to the patient	Tell the patient's doctor that the patient is worried about his or her condition
Explain about diagnostic test ahead of time so that the patient will know what to expect	Providing skin care
Tell the patient's doctor that the patient is worried about his/her condition	Repositioning patient and making him/her comfortable

TABLE 5-8 Areas of importance identified by nurses that were less important to patients

Asking the dietician to serve the patient soft foods that he/she is able to chew
Helping the patient make arrangements for his/her care at home
Assisting the patient with meals
Arranging for a community nurse to visit the patient at home
Giving the patient pamphlets to read and/or talk with him/her about the illness in order to help him/her understand how to care for him/herself
Changing the patient's position frequently
Talking with the patient's family about the illness and the care he/she will need at home

The three areas of care that both patients and nurses agreed were not important (as indicated by a ranked mean score of less than four) were: 1) Arranging for the patient's priest, minister or rabbi to visit him/her, 2) helping the patient understand how to plan the diet he/she will need at home, and 3) discussing with the patient the amount of activity he or she should have at home.

TABLE 5-9 Least important priorities for nurses in aged care areas (Column A) vs. least important priorities for patients (Column B)

Column A – Nurses	Column B – Patients
Ensuring that the unit is clean and tidy (though	Assisting the patient with meals
Helping the patient with grooming, i.e. nails, hair (however nurses still listed it with a mean of 4.11, just not as important as other areas)	Asking the dietician to serve the patient soft foods that he/she is able to chew
Giving or assisting the patient with a daily bath (however, mean of 3.96, so it is still seen as important, but not as important as other items)	Helping the patients make arrangements for his/her care at home

As shown in Table 5-9, nurses placed a lesser importance on activities of daily living personal grooming and ensuring that the unit is clean and tidy, although patients listed ensuring the unit is clean and tidy as their most satisfied area with a mean of 4.74. Of note as evident in other data sources patients did not ascribe importance to making arrangements for care after discharge.

Analysis and evaluation of the CAS survey enabled identification of gaps in care provision and of disparities between the needs and expectations of patients, carers and nurses. This evidence was available to be used for the INHospital Study. The CAS findings, combined with evidence from the literature, provided the nurses with motivation to continue and build on the change processes being put in place. In addition, this process provided an opportunity for participants to reflect on the

findings from the CAS survey. The acute aged care nurses using action research reflected upon the CAS findings presented above. This provided a platform for evaluation of future changes. Reflection gave the nurses on each of the acute aged care wards the opportunity to discuss action research concepts, reflect on their current care priorities prior and post administration of the CAS survey. Nurses also had the opportunity to reflect on what it could mean for their ward to participate in Phases Two and Three of the INHospital Study.

A detailed discussion of the CAS results and the findings from action research Cycle Two are presented at the end of this chapter.

5.7 Cycle Two – scoping the problem

Action research Cycle Two evolved after reflection on the CAS survey findings; this enabled the nurses and the researcher to move forward and further scope the problems facing acute aged care patients, their carers and the nurses. Qualitative data in the form of two open-ended questions at the end of the CAS surveys and comments on the survey questions were also collated, analysed and reflected upon as part of action research Cycle Two. The nurses and the researcher felt that these data did not provide sufficient information to clarify some of the CAS survey findings on their own. The nurses and the researcher decided that more data needed to be collected to add clarification and depth to the CAS survey findings. Two of the initial five acute aged care wards agreed to participate in separate, individual semi-structured interviews of patients and carers to obtain additional detailed information to elucidate and expand upon the initial CAS survey data.

5.7.1 A flexible way to move forward

The reflections of the CAS survey findings enabled the nurses and the researcher to move forward and plan change. This planning stage was necessary as the valuable data collected, especially in light of the paucity of literature evidence, provided a baseline from which the collaborative model of nursing care was to be developed, implemented and evaluated. These data were used to drive the action research process and provided the basis for evaluation. A plan needs to be realistic and flexible as it provides an action plan prospective to action (looking forward), which aims at critically informed action[1-6].

The aim of Cycle Two was to describe patients' and carers' perceptions of and beliefs about their care priorities and satisfaction with these care priorities. In planning the semi-structured interviews the nurses and the researcher agreed that fourteen semi-structured interviews were conducted with individual older patients and their carers to probe nine questions about care priorities and satisfaction levels in more depth. This question route was derived from emergent categories from the survey data and identification of key categories from the literature review. The questions also expanded on the perceived needs of older people and their perceptions of the nurse role in their care (see Table 5-10).

TABLE 5-10 Question schedule for semi-structured interviews with patients and carers

Q 1: Describe what you think the nurse's role is in this ward?
Q 2: What are your most important nursing needs in this ward?
Q 3: To what extent do the nurses attend to your needs?
Q 4: Do the nurses attend to your needs as quickly as possible?
Q 5: Does the time the nurses take to attend to your needs affect your care?
Q 6: Describe how the nurses take time to speak with you about your condition, treatment and follow-up care?
Q 7: How do the nurses take time to speak with your family about your condition, treatment and follow-up care?
Q 8: What importance do you place on caring for yourself independently and remaining as independent as possible during your stay in hospital?
Q 9: Has anyone explained your discharge process to you? (Prompt: Have they discussed if and when you may be going home? If you need some kind of nursing care or health service?)

Questions 1-4 explored how patients and carers perceived the role of the nurses, the patient's most important nursing needs and how the nurses attended to those needs. These questions can be grouped and linked to Tables 5-5 and 5-6 which identified the nursing care that patients rated as most important and the nursing care they were not satisfied with. Questions 6-9 can be linked to Figures 5.2 and 5.3 which measured patient, carer and nurse differences on importance and satisfaction scores. These findings from the survey results together with feedback from the nurses informed the process for the interview questions.

5.7.2 Data collection of the semi-structured interviews

The action and fieldwork stage of data collation and analysis of the semi-structured interviews was undertaken to use the available data to scope the problems identified in the needs assessment by the nurses participating in the INHospital Study. In order to obtain a comprehensive view of care issues, a convenience sample of patients and carers was invited to contribute to the semi-structured interview.

5.7.3 Participants interviewed

The participants interviewed included:

1. Patients being cared for in aged care acute care settings (*n*=7); and

2. Family members/carers who visit acute aged care patients on a regular basis (*n*=7).

It should be recognised that the qualitative data is a complementary, concurrent mode of data collection. Data collection continued until data saturation occurred. Each research participant was interviewed separately. The seven patients and seven carers in the acute aged care wards from two different hospital sites gave informed consent and participated in a total of fourteen semi-structured interviews. The action stage gave nurses participating more opportunity to collaborate with the researcher, while they looked forward to the findings, reflection and analysis from the semi-structured interview findings.

5.7.4 Interview data analysis

A reflective and iterative course of action was used to maximise the understanding of the data and minimise any external bias. In total there were 25 hours of transcribed interview data. Initial data collection and analysis were undertaken concurrently as reflexive activities. Following each of the semi-structured interviews, the researcher would reflect on the findings, including non-verbal clues, opinions and values. Towards the end of the sixth and seventh interview researcher and research team agreed that no new information was emerging and that data saturation had been attained. Audio-taped interview data were transcribed using Microsoft Word 2000. Transcripts were read and re-read to immerse the researcher in the data. This enabled

the researcher to get a feel for the participants' experiences, their perceptions of care priorities and the levels of satisfaction with nursing care and the nurses' role.

5.7.5 Conceptual mapping and integrating of data using NVivo

The qualitative data arising from the semi-structured interviews was analysed using the computer software package NVivo[7] to conceptually map and integrate the data. NVivo has the capacity to link themes identified in the data and allows for the conceptual mapping and integration of data to handle multifaceted action research projects[7]. This enables a clear identification of common categories and management of the content/codes analysis. The primary researcher undertook the coding and analysis, it was later validated by the research team when it was analysed to extract common categories using the process of content analysis. Content analysis allows for categorisation of words to identify themes, concepts and meaning to build up their theoretical significance[12, 13].

When categorising words, codes were assigned. Codes can be defined as "analysis in which descriptive or inferential information is marked by assigning units of meaning to the qualitative data collected throughout a study"[14, p56]. The transcripts of the interviews were analysed, with phrases, words, sentences and some paragraphs assigned codes using NVivo's coding text. The initial codes resulted from the interview question schedule although these codes then encouraged the researcher to make decisions about the importance of different sections of interview text. This enabled the research to associate and identify text with new themes, using the structure to draw associations between codes to construct foundations for the model of nursing care development and to correlate these themes against empirical data[15].

Qualitative data from the written comments of patients, carers and nurses in the CAS are included in the analysis, although the nurses were not interviewed. In the preliminary phase open coding was used and subsequently key concepts were identified and developed as a result of a line-by-line analysis of the interview transcripts and qualitative survey data. Using the question route to assist in sorting the preliminary categories, these were later confirmed by continued analysis and initial coding, using NVivo as a tool to manage the codes and themes. As stated by Miles and Huberman[14, p 56], "coding is analysis". Therefore the INHospital Study analysed the interview data, qualitative CAS survey data and reflective journal to a point where themes were identified and refined and could be applied to an entire corpus of tests, as much of the interpretative analysis had already been done[15].

In subsequent analysis, data were sorted into primary categories (the most appropriate trees and free nodes), using the method by Bazeley and Richards[7] as described above. Similar comments and ideas were clustered together into categories. Utilising comparative analysis, emerging themes from the data were validated by the interview data. This process was undertaken to make certain the categories derived were attributed to the views expressed by the participants to ensure validity and trustworthiness. Further, this process aided analysis, interpretation and derivation of data categories[16].

5.7.6 Cycle Two – Findings

The data revealed five common yet interrelated themes from the qualitative data collected in Phase One across both patient and carer interviews and the qualitative survey data. Four common themes were identified: 1) Nurses doing the best they can in challenging circumstances; 2) Achieving a balancing act in a pressured

environment; 3) Striving to maintain and sustain independence; and 4) The discharge process: not a shared priority. The fifth theme was unique as it only derived from carer data and related to carer burden. However, this was not coded, as such, from the patient data. Rather, the four themes will be discussed and then the carer burden category will be described.

5.7.7 Nurses doing the best they can in challenging circumstances

The concept of nurses doing the best they can in challenging circumstances emerged from the data. Both patients and their carers witnessed nurses operating in a busy and demanding health care setting and admired their ability to cope with often competing demands: *"I think they do the best they can do…"* given the circumstances that they work in; *"it gets very busy now especially in big hospitals"*, and they *"they do all they can …"*. Data revealed that participants saw nurses having to divide limited time between patients and a range of competing demands; *"I think they do as much as they can…do their best to get around to everyone…"*.

Despite the busyness of the ward, participants commented on the caring communication style used by nurses in the ward: *"Nurses do take time to listen"* and carers *"(when) they speak to him…they are very nice"*. Carers interviewed for the study also found being busy did not detract from nurses taking the time to take phone enquiries and to answer their questions in an honest and supportive way: *"when I ring from down at home they tell me honestly and that's what I want, she's had a turn, she hasn't, if she's fine"…"if I ask them a question they answer me honestly and that's what I like"*. Data revealed that the capacity to deliver care in challenging circumstances contributed to a sense of trust, admiration and confidence for the nursing staff expressed by patients and carers.

Similarly, patients and carers expressed respect for nurses' positive demeanour and complimented them on their care and attitudes: *"…they've always got a smile on their face and there's no crank pot", "…you feel that you're well looked after and that they're pleasant people…"; "…they're very good, all the girls are"; and the "…nurses are doing enough"*. Patients and carers also describe the differing and wide ranging responsibilities nurses have. Patients and carers also expressed support regarding how nurses 'do the best they can'. One patient stated, *"…they look after you, they give you medication, take your blood pressure,…. and wash you when you can't wash yourself, I cant fault them".* The thoroughness of nurses in executing their role was also seen, such as, *"…looking after them, they never stop they're always doing things properly";" well they do everything they're supposed to do and they never grizzle…",* furthermore, they identified that nurses give,*"…a hand, just a little hand up sort of you know steady yourself"* and *"well they come and make the bed, I've got a catheter in they come and check that and change it"*.

Qualitative data revealed that respect for patients and their families was central to the care delivered by nurses in the study setting. Nurses demonstrated mutual respect for patients by stating that it was, *"extremely important (to remember that) patients are human just the same as us"* and that, *"age doesn't matter… we should care for them"*.

Nurses acknowledged that there were issues that impacted adversely on the delivery of client care. For example, nurses noted that there were times when they were unable to give priority to all areas of nursing care, saying *"sometimes other things take higher priority".* Changing priorities made the delivery of appropriate and timely nursing care difficult to achieve purely because *"…often there is not enough*

time". Just because nurses were unable to provide all the necessary patient care did not mean that a low priority was placed on these issues: *"it doesn't mean it's not important"*. The inability to deliver care as planned was often due to heavy workloads, which meant that it just was not possible for the nurses to provide all care all of the time and that it *"depends on priorities, number of staff and emergencies*".

Data from carers, patients and nurses revealed a sense that the nurses were working in a highly charged environment where they had to juggle multiple and often competing demands. A backdrop of a culture of busyness emerged from the data, with respondents acknowledging the pressures that nurses were under, saying *"they're rushed off their feet here"* and *"they're very busy"*, and a recognition that the nurses were doing their best under this considerable pressure, *"considering the shortage of staff … they are run off their feet"*. The importance of personal grooming was described by one patient as *"… if they've got time they can do it"*. In addition, patients and carers also viewed their clinical condition as often precariously balanced as they processed their recent clinical event and contemplated recovery and adjustment.

5.7.8 Achieving a balancing act in a pressured environment

Data revealed that nurses were prioritising the workload, and that essential and critical issues were being attended to at the expense of more basic nursing care. Tasks such as helping with care of the mouth and teeth were thought of as important although it was not attended to at times as there was, *"…not enough time when you have other dependent patients"*. This type of omission did upset some patients, saying *"I haven't cleaned my teeth in three days"*. Even though smaller tasks such as mouth care *"appears to be lacking"* and food being served properly was not rated

highly, *"they are very busy people with other things to do"*, other patients and carers did not recognise smaller cares of their mouth, teeth and skin as a priority for the nurses by saying *"they are to busy to look after my skin"* or *"I can do it myself … it's not important"*. These statements further express that they did not want to add to the pressures of the nurse's work. Unfortunately, this may also explain the patients' and carers' preoccupations with physical needs (see Figures 5.2 and 5.3), in contrast to that of nurses, who felt they could not meet some of their patients' needs (see Table 5-6).

5.7.9 Striving to maintain and sustain independence

The third theme to emerge was the importance patients placed on maintaining independence: *"I do as much as I can for myself"*. The majority of patient and carer interviews identified maintaining and sustaining independence as a critical concern, shown in statements such as the following: *"because I do like to feel independent"; "independent now"; "I insist I can do everything myself"; "I would love to see him walk"*. The major findings reported in this section were all related to the way patients and carers reflected, at times with uncertainty, on their abilities: *"…ah cause I feel you know sort of losing your marbles or what as you get older, I like to keep it, doing as much as you can"* and *"you're limited in what you can do for yourself"*; their age: *"when you get to my age you know and your mind wanders a lot doesn't it"*; and future regarding their independence: *"I've always done everything for myself and I've always been independent"* although *"I'm frightened of falling*". The patient's health and well-being in this state of transition are linked with nursing care as a catalyst to promoting independence. Nurses recognised the importance of promoting independence and minimising the deleterious effects of hospitalisation and ageing.

The nurses discussed patient independence in regards to specific care that patients needed, some nurses relating independence to age with statements such as *"in the age group 65 onwards, there is going to be a noticeable physical decline in a person's ability to self-care"*, while others stated that independence *"does not depend on age, what makes a difference is how unwell the patient is"*. In addition, they demonstrated awareness of how co-morbid conditions can impact on the recovery time and independence of an older person as they *"require more time to recuperate"* and thus nurses would need to *"encourage as much independence as possible"* and provide *"assistance to safely achieve independence, and autonomy"* and *"encourage self-help"*.

5.7.10 The discharge process: not a shared priority

The patient's lack of understanding about the discharge process and management of the discharge process was demonstrated throughout the interviews and survey data. There was a perception that discharge was not integrated in the care process: *"I've got to be put back on my feet and then for me to walk and then they'll start looking after the other stuff"* and *"I am not ready to go home yet … it's not important"*. Many patients did not weigh up the importance of discharge as they had not been in hospital for long: *"but ah I'm not, I've been here a short while yet I've got a way to go yet"* and *"…too early as yet"*. In addition, there was uncertainty about whose role it was and whether discharge planning was delegated to social workers, saying *"work of the social worker … the nurses do enough"* or it is work of the *"occupational therapist"* or it is the *"doctor's job…"*. These findings expanded on the quantitative findings and supported the CAS findings that patients did not rate discharge as important. These findings support the disparity in the CAS findings

between the nurses' importance rating of discharge-related care and their satisfaction with being able to deliver this care satisfactorily.

5.7.11 Challenges of the carer role

The issue of the additional demands of carers emerged only from the carer data. It is noteworthy that the nurses and patients participating in the interviews did not see this as an issue. While all the other categories in the carer data correlated well with patients' interviews and survey data, this stood alone. It was evident that the carers felt that the pressure *"for me [was] very hard"* and at times were stretched: *"I am here for about six hours a day…"* this "*…actually took away from other duties",* another carer said, *"…because she doesn't want to eat this food so I have to go home and cook in my own food".* The pressure to be present and provide care was unmistakable: *"I come in every day to see him… I went to pieces yesterday….coming to Sydney is taking its toll on me".*

5.8 Discussion Phase One findings

Phase One represented the diagnostic phase of the INHospital Study. This includes a review of care delivery and resource allocation. Factors have been identified that are able to drive the sustainability of future system changes. These data will be used to drive the action research process. The data above show that nurses, patients and their families or carers are functioning in a pressured environment in which they are motivated to achieve positive outcomes. On the basis of the data reported, there is a need to review methods of care delivery and resource allocation to minimise patients' and carers' perceptions of a pressured environment and the frustration of nurses of not being able to deliver effective and complete care.

Phase One of the INHospital Study has identified levels of importance of and satisfaction with nursing care priorities for older, acutely ill patients as perceived by patients, carers and nursing staff. Not all aspects of care were perceived as equally important, and this has implications for planning and satisfaction of care. A comparison of the three participant groups showed that each rated implementing, observing and reporting doctor's orders similarly; nurses and carers rated physical care as more important than patients; nurses and carers rated psychosocial care higher than patients, and nurses and carers rated discharge higher than patients. Thus, patients' expectations of care were not as high as those of nurses and carers for all categories with the exception of doctor's orders. These data thus provide information for needs assessment upon which to base nursing practice.

All participant groups rated doctor's orders as most important, with mean ratings reflecting very high importance. Physical care was the next highest category. Discharge planning and psychosocial care were rated least important. All three groups concurred on the order of satisfaction: they were most satisfied with doctor's orders, followed by physical care, psychosocial care and least with discharge planning.

Although there was a significant correlation between importance of and satisfaction with physical care for all participant groups, an inspection of the means suggests that physical care was rated highly in terms of importance, but rated moderately in terms of satisfaction. Carers and patients were less satisfied when compared with nurses' ratings of opportunities to provide physical care. Thus there is some incongruence in this category between expectations and reality of care. Although the nurses seem to feel that they are providing a relatively high level of physical care, it does not appear

that patient and carers expectations are being met. The finding that patients and their carers were only moderately satisfied with the provision of physical care needs suggests that this aspect of care needs to be improved. One of the possible recommendations of these findings is that more nurses be provided. An appropriate skill mix may be to provide additional enrolled nurses to furnish patients' basic needs that make up many aspects of the physical aspect of care.

Findings suggest that nurses are meeting patients' needs in the area of implementing doctor's orders, as it was highly rated in importance and satisfaction.

All three participant groups gave discharge planning satisfaction ratings in the moderate or lower range, suggesting that discharge planning needs improving. Discharge was not, however, rated highly by patients or carers in terms of importance, so expectations meet reality for these groups. Nurses were the only group who rated discharge planning relatively highly, yet their satisfaction ratings indicated they were only moderately satisfied with the care they were able to provide in this category. This finding indicates a need for change to practice that improves congruence.

The literature[17-20] reflects that often methods of delivering care to older people in the acute care setting are not commensurate with their needs. This empirical study describes the mismatch in perspectives and provides useful data to inform the care of older people in the acute care setting. As is to be expected in an acute care situation, emphasis remained on the 'here and now', with a limited view towards the post-discharge period, particularly from the perspective of patients. For older people, unexpected hospitalisation may require time for the processing of information. The development of transitional models to prepare patients for discharge may be useful.

This low priority on behalf of patients likely explains high rehospitalisation rates in conditions such as heart failure and chronic obstructive pulmonary disease[21]. Although nurses can engage in discharge planning processes, there needs to be a mutual reciprocity on the part of patients to make this work effectively. Identifying mechanisms to actively engage patients and their families in this process should likely improve health outcomes and is a fertile area for further investigation.

The high importance patients place on physical care and nurses' adherence to doctor's orders should not be ignored in planning and evaluating care. These data also have implications for interdisciplinary practice in acute care settings[10, 17, 18, 22]. Achieving congruence among members of the health care team is advisable to eliminate conflicting goals in care delivery. This also implies that health messages and treatment instructions should be consistent across members of the health care team. It also flags a potential for conflict if the goals of nurses and medical care diverge. The development of transitional models to prepare patients for discharge may also be useful.

The qualitative data collected in Phase One provided additional depth to the findings of patients' and carers' care priorities and satisfaction. Five common discrete themes derived from the qualitative data were identified to be used in Phases Two and Three of the INHospital Study to help build the foundation of a model of nursing care. Clearly, the pressured culture of busyness appeared to influence many factors relating to meeting patients' and carers' needs. The data reported above show that nurses, patients and their carers are striving to achieve positive outcomes in a pressure cooker environment. In some instances, as illustrated above, there is a mismatch between what patients consider a priority and the priority ascribed to that

task by nurses; for example, as seen in patients not prioritising discharge planning. In this sample patients were very focussed on the 'here and now' and therefore had an emphasis on physical needs as a key to achieving 'wellness' and 'independence'. On the basis of the data reported above, there is a need to review the delivery of methods of care and resource allocation to minimise patients' and carers' perception of a pressured environment and the frustration of nurses in not being able to deliver effective and comprehensive care.

Throughout the processes of data collection and data analysis many of the nurses described the potential for improvements in the delivery of clinical care and configuration of the ward activities. Phase One of the INHospital Study determined the need for an educational program for nurses based on evidence that incorporates patient, carer and nurse perspectives.

5.9 Conclusion

Nurses need to tailor care to meet the needs of patients and their families in accordance with their expectations and levels of satisfaction. The increasing emphasis on interdisciplinary care underscores the importance of collegial cooperation to better address the needs of patients and their carers. The Phase One findings from the INHospital Study underscore the need for promoting and educating patients, carers and nurses about the critical role of discharge planning in achieving safer and better health outcomes for elderly people following discharge from the acute care setting.

As discussed in Chapter Four, the action research framework provides a vehicle for achieving clinical change by empowering clinicians to reflect on and review their

practice, and identify and implement strategies to improve the quality of care for patients and their carers along with potentially improving the quality of their working life or job satisfaction. These important data were used to inform the model of nursing care development and are shaped by additional data collection undertaken during Phases Two and Three of the INHospital Study as described in Chapters Six and Seven.

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Chapter Six
Phases Two and Three of the INHospital Study Model of nursing care development

6.1 Introduction

This chapter presents Phases Two and Three of the INHospital Study, using an action research process to plan, develop and implement a model of nursing care. For ease of reading and simplicity of reporting the model of nursing care, these findings are presented as four separate action research cycles (Table 6-1). The model of nursing care for the INHospital Study was based upon the needs assessment from Phase One as discussed in Chapter Five. The first two action research cycles were previously presented in Chapter Five, these data guided and shaped the subsequent Phases Two and Three.

TABLE 6-1 Action research Cycles Three, Four, Five and Six

Cycle	Description
3	Priming the environment for change & testing initial Model
4	Mid-point data collection – Evaluation
5	Reflection and refinement
6	Evaluation of refined Model (quantitative data)

6.2 Cycle 3: Priming the environment for change – Testing the initial model

The SWP resolved to assess the study progress 18 months after the beginning of the project. Data collection at this point allowed the project team to critically assess the impact of the collaborative INHospital Study, enabling identification of factors to improve the care of older people.

6.3 Critical reflection to reconceptualise change

Critical reflection and action are important processes for enabling nurses[1, 2] to refine care practices for older people and to identify the various issues that impact on nursing practices at a ward level[3]. Phase One provided important baseline data for shaping and informing the model of nursing care development. The continued process of reflection was a critical step in encouraging nurses to reflect on older peoples' priorities and their levels of satisfaction with nursing care.

TABLE 6-2 Key issues identified as areas for action

Improving patients' medication knowledge
Increasing effective communication regarding the discharge process
Clarifying the medical and nursing roles
Improving communication between clinicians and patients and carers
Increased nurses' involvement in case conferences
Refining nursing roles and scope of practice to be consistent with contemporary nursing skill mix
Scoping and defining the nursing team
Promoting the image and profile of aged care nursing

The notion of striving for cohesion and unity in the nursing team was emphasised, as illustrated in the following excerpt from the team minutes: *"increasing the team factor as it does not feel like one at present"*.

The analysis of work practices to promote the concept of the nursing team became a central focus of the INHospital Study. Reflecting on the Phase One data provided an impetus for participants to move forward and begin planning change. After reflecting on the data, nurses began planning on how to address issues they had identified with a view to improving care. Proir to the formation of the SWP, all nurses employed on the ward had been involved in the INHospital Study. A voluntary SWP was formed as a representative sample of all the nurses with the researcher taking on the role of facilitating the project. The SWP reported back to the nurses and ward executive staff during meetings. This is reflected in the project team minutes where the group has negotiated to obtain a breadth of representation of nursing needs. *"For the implementation of a model of nursing care, four nurses volunteered today to be part of the Strategic Working Party"*. Then at a subsequent meeting, *"…Six nurses, three registered nurses, two new graduate registered nurses and one enrolled nurse"*.

The SWP agreed to participate with and communicate on behalf of the remainder of the ward nurses. The SWP initially wanted to develop strategies to ensure that evening and night duty nurses were informed of all INHospital Study developments. An outcome of these concerns was that one regular night duty nurse agreed to actively participate in the SWP, and bridge the divide between the day and night shift nurses. In undertaking a SWP role, these nurses provided the capacity for identifying the interests of those whom the changes would affect through joint decision making, communication and collaboration[1, 4-6].

Members of the SWP were provided with their own folder to maintain all paperwork, such as meeting minutes. For those who were not present, a copy of the minutes was placed in a sealed envelope in their internal mailbox. SWP members met on a regular basis, although due to constraints of shift work often only two or three members met at any one time. All members had the researcher's phone number to facilitate discussion of matters as they arose. This is described in the researcher's field notes:

> *"…went today at handover to meet the nurses again, confirmed and received consent in regards to the SWP. The SWP initially met in the conference room about the steps of the action research cycles and development of the model of nursing care".*

6.4 Developing the change process

The focus of action was now on developing the change process on the ward. The SWP commenced the change process by listing the issues they perceived as important in improving patient care on the ward in addition to those identified in the baseline assessment. A recurrent theme in all aspects of practice was improving communication, not only within the nursing team but also with other health professionals, patients and their families. It was agreed that targeting communication

in key areas such as medication management and discharge planning would improve care. In addition, resolving issues relating to work allocation and scope of practice were considered to be of a high priority. A summary of these issues was communicated to all the nurses on the ward, including evening and night shifts, ensuring engagement and the opportunity to comment. In addition, the researcher visited the hospital after-hours to meet with permanent evening and night nurses to make certain they had an opportunity to review the Phase One findings meeting minutes and were happy with the planned change processes. This provided all nurses with an opportunity for participation and ensured that their voices were heard. The formal use of these action processes assisted in engaging nurses in the INHospital Study whilst reinforcing the importance of their role within the care team.

6.5 A step towards a person-centred care philosophy

Identifying the issues listed in Table 6-2 lead the SWP to critically reflect on their current work environment and the philosophical approaches that unpinned their clinical practice. The SWPs and the ward nurses' perception was that the current processes of delivering patient care were not necessarily tailored to the needs of the older people in their care. This action research process enabled these nurses to reflect on their care plan. This challenge led to a different practice milieu, where care was driven by the 'patient's perspective' as opposed to organisational imperatives and traditional care models. The SWP reflected again on the findings from Phase One and developed a plan to share this vision for improved care delivery with other members of the nursing team. The nurses and management validated this new approach to care delivery through using a 'person-centred care' philosophy as demonstrated in the minutes of the meeting.

> *"Many issues were raised although the concept of using a person-centred care philosophy as an overhead for the whole ward to work under was discussed and well received".*

This meant that care was to be tailored to address the needs of the older person identified in the exploratory phase of the project and informed by the current evidence base described in Chapter Three. The action research process was used to guide the adoption of this new philosophy by the ward.

6.6 Support, involvement and leadership of management

Active involvement of management though the action research process was a key element in ensuring support and the sustainability of future changes. Action and involvement were supported through communication strategies after meetings with nurses and the SWP. The researcher played a critical role in fostering communication and involvement. This is reflected in the SWP minutes:

> *"…after checking with the SWP, the NUM [Nursing Unit Manager] will receive a copy of all the issues raised and between him, the Educator and Clinical Nurse Consultant they will address what they can over time – such as increased aged care education etc".*

Part of the analysis and evaluation of the action research cycle was to monitor collaboration and communication processes. This collaboration and communication was an inherent part of the INHospital Study environment. The nurses participating in the action research project felt that communication with management, engaging their support and promoting leadership were critical to the proposed success and sustainability of planned changes. The NUM and researcher continually communicated with the hospital Director of Nursing [DON] and Deputy Director of Nursing [ADON] about the INHospital Study's progress. Issues surrounding communication were discussed at almost all of the meetings held by the nurses. The

research team understood that successful interventions rely on communication across the care continuum to improve patient outcomes[7-9].

6.7 Cycle 4 Mid point data collection - Evaluation

Action research cycle four enabled reflection on issues that emerged from preceding meetings see Table 6-2. The SWP reviewed the journey to date, the nurses reflected on their care practices including revisiting Phase One findings. This review was fundamental as it allowed the SWP to move forward in their thinking and develop a critical approach to define what they wanted to achieve. After a period of reflection and further discussion, the nurses realised that in their current work environment they would have to slowly implement changes and focus on sustainability.

6.7.1 A step at a time towards change

The SWP met to consult with the nursing team and identify initial areas of focus for the model of nursing care development. By working collaboratively with the NUM, Educator and CNC it was decided that in preparing the transition to a philosophy of person centred care, the SWP would initially focus on planning actions that would enhance the discharge planning processes that were congruent with organisational goals and the issues identified in the baseline data. Key ideas included *"improving communication and patient medication management, with a focus on patients who were being discharged home and lived alone"*(Team minutes).

As there were additional issues (identified in Table 6-2) that would need to be addressed at a later date, the SWP and nurses felt that it was important that the NUM and Educator were provided with this documentation. On receiving this information the NUM and Educator assured the nurses that these were incorporated into their

long-term plans for the acute aged care ward and for future changes under the model of nursing care.

6.7.2 Nurses modify practice

Empowering strategies relating to the capacity to modify practice emerged from the action step in cycle four. Following clarification of these issues, the nurses started identifying a practical approach within existing organisational resources and priorities which enabled the discussion and deliberation of strategies to address identified issues for action. This resulted in the nurses embarking, directing and assuming responsibility for driving changes within their work environment which proved to be an empowering process. Promoting reflection, reviewing data, and promoting communication from previous action research cycles allowed for the ongoing review of practices and development of intervention and evaluation strategies. The SWP and nurses also agreed that in combination with the formal assessment of the patient's needs, communication regarding discharge and medication management were also key issues identified in Phases One and Two.

6.8 Data collection tools within the action research cycles

Within Chapter 4 the methodological considerations for the data collections tools for Phases Two and Three have been discussed. These tools include the satisfaction component of the CAS; Discharge Planning Tool (Appendix 9), Medication Regime (modified from the NICHE Medication concepts[10, 11](Appendix 8); Barthel ADL Index (Appendix 6); MMSE[12, 13] (Appendix 7), Field notes, Personal Journal and minutes of the SWP. This section presents additional information about the tools that is relevant to Phase Two and Three.

6.8.1 Satisfaction component of the CAS

To provide the researcher with a snapshot of the progress on the acute aged care ward 18 months into the INHospital Study it was agreed that surveying the patients on the ward was appropriate. This was supported by the SWP, in consultation with the NUM and Educator. The satisfaction component of the CAS [(14)] used in Phase One to identify satisfaction of aspects of nursing care was agreed upon as an appropriate survey tool for continuity.

6.8.2 Medication regime assessment tool

The SWP and nurses identified the need for a medication assessment tool. This tool enables the nurses to improve medication management through knowing if contact was needed with pharmacy prior to patients' discharge. The pharmacy played a large role in the development of this by providing patients who were being discharge with a detailed *medication summary card*. The SWP engaged the support of the Pharmacy Department for the INHospital project, yet a barrier to the implementing of a *medication summary card* for all patients was the limited number of available hospital pharmacists. In acknowledging the limitations of organisational resources it was negotiated with the pharmacists to provide medication cards to high risk patients, particularly those living alone. It was decided in the first instance that identifying living alone was an important cue to the nursing team that this patient was at higher risk.

6.8.3 Barthel ADL Index and the MMSE

Following the review of the baseline data, the nursing team considered that in order to deliver patient centred care based on individual needs that there needed to be some

form of empirical assessment. Even though there was a range of organisational forms, such as falls risk, it was considered that these were insufficient to assess the patient's clinical status and as a consequence their needs. Following consultation with the nursing team, The SWP resolved that all patients admitted to the ward would be assessed for cognitive status using the MMSE scale[12] and the Barthel ADL Index[15] to assess patients' level of their functional need. It was considered these data would provide a baseline for changes in activities of daily living. This information was considered critical as reflected in the team minutes

> *"as this would aid in addressing issues related to self care which would also help in identifying patient needs prior to discharge". (Team minutes)*

6.8.4 Discharge checklist tool

At the time of the INHospital Study a new generic discharge planning form was being implemented across the hospital. As a consequence there were limited opportunities for tailoring this form. Therefore the nursing team designed a discharge checklist tool (Appendix 9) to complement the organisational discharge planning form. This tool aimed to not only provide a decision support tool but to improve the communication processes involved in discharge and to facilitate the nurses to focus on the patient and carers discharge needs.

6.8.5 Continued communication for practice change

Minutes of all meetings were essential in the action research cycles for effective communication and clarification, analysis and evaluation, particularly given the challenges of communicating with all staff across all shifts. Once confirmation was received from the SWP about the content of minutes, and discussions and plans for the implementation of tools to address, functional status, medication management

and discharge all “minutes of all the meetings and action plans will be made available to all ward staff and nurses”. These action plans and minutes were stored in a folder that remained permanently at the nurses’ station on the ward. This provided opportunities for learning, professional development and problem solving whilst empowering nurses to engage in the change process and develop co-operative and interactive relationships with one another[16]. The four steps within the action research cycle allowed a constant process of communication, reflection and change. By using action research the researcher became a facilitator who worked ‘with’ the nurses while they participated and had ownership of the action research processes occurring, this allowed the nurses to analyse and evaluate their future actions.

6.8.6 Field notes and personal journal

In order to support the facilitator role, field notes were recorded and referred to throughout the action research cycle to help identify and clarify the issues raised by participating staff and the SWP. These data allowed a process of reflection allowing a clear contextual understanding of the environment in which the action research process occurred, the actions taken by the ward staff in developing the model of care and the processes of negotiating challenges and making decisions to drive the action research process.

6.9 Cycle 5: Reflection and refinement

Key issues that had been raised within previous cycles were reflected on within action research cycle five. A leader who is supportive and collaborative facilitates effective, sustainable change[21]. The NUM of the ward in this study possessed these characteristics, and in doing so empowered the nurses to make and sustain the

changes to nursing practice that they had identified. In collaboration with the nurses, the NUM agreed on and encouraged suggested changes such as the implementation of tools to address, functional status, medication management and discharge. In addition and based on the continuous feedback from nurses and the issues facing the acute aged care environment, such as an increasing diversity in skill mix, it was decided to restructure the way in which the nurses provide nursing care in their ward environment. As a person centred care philosophy, promoting the tailoring of care where possible underpinned the new model of nursing care, this philosophy needed to align with organisational constraints and resource consideration. This model aimed to address some of the major issues that continued to be raised within the acute aged care ward such as communication, promoting continuity of care and dealing with a diverse nursing skill set and staff shortages.

6.10 Considerations for the management of care

In planning potential changes in the way the nurses managed care of their patient's considerable discussion and debate ensued regarding the issues listed below. Due to the large number of considerations (Table 6-2) a lot of time and critical reflection and planning was necessary prior to any action been implemented. Table 6-3 lists some of the key consideration in the planning of nursing models of care generated by the nursing team. Of note the majority of critical factors impacting on developing patient centred models of nursing care related to nursing workforce issues.

TABLE 6-3 Key considerations in the planning of care

1. The ratio of experienced to less experienced nursing staff
2. Shift changes (the need to be flexible to meet the nurses and patients needs i.e. night nurses)
3. Numbers of full time and part time nursing the nurses
4. Roster requirements (flexibility i.e. child care, education requirements)
5. Education opportunities (support for post graduate course work)
6. Consideration of diversity of nursing skill mix
7. Consideration to clinical needs of patients.
8. Interpersonal and interprofessional issues
9. Annual leave, sick leave, long service leave and study leave

6.10.1 A new team nursing approach for managing care

The review of data, consideration and deliberation of the nursing team decided that an important strategy in addressing key issues involved moving to a new team nursing model. Initially on the acute aged care ward prior to INHospital Study, there was a traditional nursing model consisting of the NUM managing the ward and the nurses delivering care using a task-oriented approach. This was modified to a philosophy of person-centred care (described in Chapter Two) under the guidance of the NUM throughout the research cycles. The physical structure of the nursing team changed to a team nursing approach where initially the nursing team was divided into three smaller teams under an overarching team structure. The rationale for the choice of three teams was based on the environmental configuration of the ward and patient numbers. These teams were predominantly led by registered nurses. Figure 6.1 gives a diagrammatic representation of the new structure of one of the new teams.

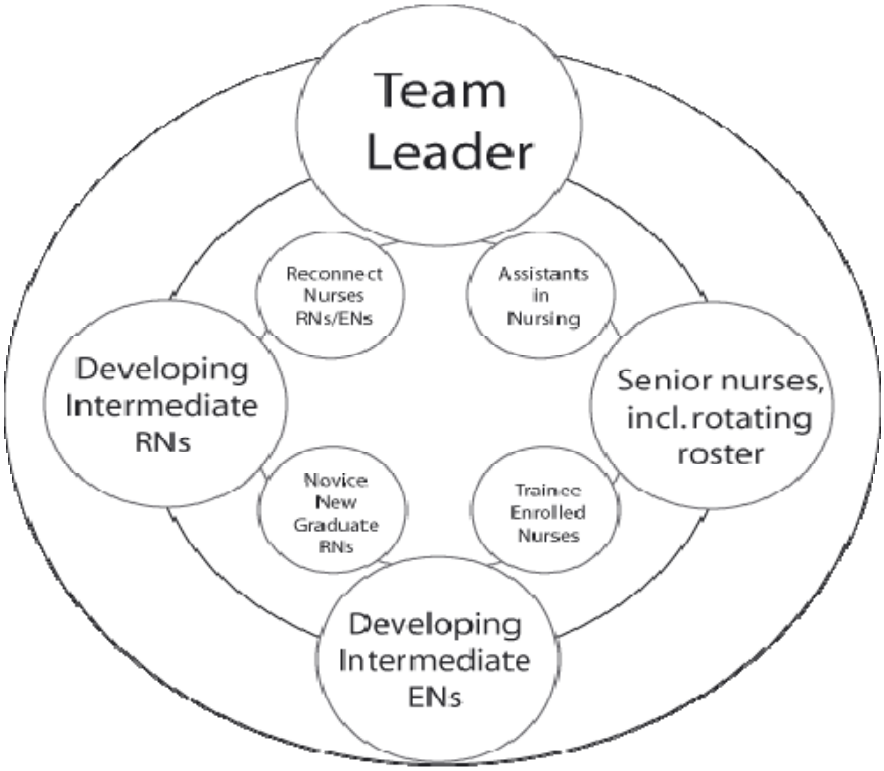

FIGURE 6.1 New Team Structure

The team leader role was defined by the nursing team as someone who was a competent acute aged care nurse with experience in dealing with the organisational aspects of the ward environment. The configuration of the nursing levels meant that there was a minimum of two senior registered nurses on each shift plus senior enrolled nurses. This meant, that there were at least three senior nurses on each shift, with a minimum of two registered nurses.

These teams provided a more even distribution of senior nurses across all shifts and addressed issues such as new graduate nurse mentoring, as illustrated by one participant's question, *"…can new graduate nurses work with a registered nurse where possible for better support and education?"* This aimed to provide improved communication between the nurses as well as support for new nurses in the interest

of better employee retention. The three teams also allowed more continuity of care between nurses and patients as each team worked in the same clinical area of the ward on two-week rotations. Upon analysis and evaluation with the nurses, the NUM and the CNC extra, benefits and concepts were documented that aided in the formation and continuation of the team nursing. These are listed below in Table 6-4.

TABLE 6-4 Benefits of team nursing

1	Three team leaders – this targets skill mix
2	Development of the team leaders through succession planning and professional development/career pathway, which results in better support and development of junior nurses and provides a career path.
3	Continuity of care through promotion of communication and shared responsibility
4	Autonomy of practice and improved management of patients
5	Streamlined workflow & improved efficiency of work practices
6	Improved admission and discharge processes as each team has continuity of care for patients in rotations of two weeks
7	Addressed issues of preceptorship, mentorship and leadership
8	Restructured orientation and preceptorship for new nurses to the specialty. This means that the team leader and the senior nurses in each team became responsible for preceptorship, education, orientation and support of the development of the new nurses.
9	Role for each team member – the teams provided development roles for each team member, e.g. participation in quality projects, i.e. nutrition, falls, MMM, ACCENTURE as there was a nursing representation on each of the project, which also addressed the issue of raising the profile of acute aged care nurses within the hospital system.

Key issues debated and discussed by the project team related to the variability in skill mix, including increased numbers of enrolled nurses and new graduates. This has resulted in an unsatisfactory situation for experienced nurses who felt excessively burdened and also the perception of a lack of support for less experienced nurses. By providing three internal teams, structured as shown in Figure 6.1, they became a support base for new nurses. Team leaders met with new nurses in informal support and teaching meetings. In addition, there were fortnightly ward meetings with regular reorientation to the philosophy of team nursing with person-centred care.

6.10.2 Findings from follow-up meeting with SWP after implementation of model of nursing care

A year after the implementation of the model of nursing care a follow-up focus group meeting was held with four of the SWP members. The meeting was recorded, and the transcript reviewed, with themes and categories extracted and reflected upon, as per the qualitative data analysis described in Chapter Four.

This section focuses on the views of the nursing staff in regards to the team nursing approach that was put in place during the implementation of the model. There was a feeling of exasperation from the staff as they still grappled with the pressures of workload and skill mix issues.

> "*We've had a lot of staff who left, a lot of experienced staff left, we've had a great deal of new staff over the last six months …a lot starting at the one time, because it's such a wide varied area and there's such a lot of things to learn*".

This pressure results in the experienced nurses feeling that:

> *"I'm one person … you can't be in charge and you can't sort out everybody else's problems, clinical wise, and then if something goes wrong sort that out as well…."*

In spite of voicing their frustrations over what many perceived as a *"relentless pressure"*, the nurses expressed some positive aspects to working under the newly implemented team nursing model in comparison to the original patient allocation method, saying, *"I like the team nursing … I think it's much better ... it's working much better"*. The nurses described some of the benefits as,

> "*You're coming to work and basically you know what kind of people you're going to work with. Also the patients you're going to work with, to a degree, because you're staying for two weeks in the one area."*

> "*… a bit of consistency with the patients because often they're here for two weeks or more."*
>
> "*You often have an idea of what's someone has said, for example, your patient is going to be discharged today".*

These comments reflect that constancy in terms of team and environmental allocation afforded a sense of constancy and relief within the "culture of busyness" identified in Phase One. When the nurses described the change process towards a team nursing model and the involvement of all the nurses, a strength was that the majority of the nurses supported the proposed change:

> *"There's not many staff on the ward who didn't like it."*
>
> "*There was an element of staff that was against it to start with."*
>
> "*I think those people adjusted and could see the good side of it."*
>
> "*You've got less resistance now."*
>
> "*There has to be an openness there for it to happen and sometimes because you've got changing people at the helm".*

The information shared by the Strategic Working Group revealed the process of changing nursing care delivery within a pressured organisational context. Their frank and candid comments revealed many challenges within the system, yet the new model and the processes to facilitate patient-centred care seemed to provide some improvement. In order to complement these qualitative findings, a quantitative evaluation was undertaken.

6.11 Cycle 6: Evaluation of refined model (quantitative data)

The original anticipated trial period for practice change was four months. This phase involved a post-test of impact of the model on patient satisfaction in addition to assessing the impact of strategies developed by the nursing team, for example,

discharge check lists. The research questions for Phases Two and Three are listed in Table 6-5.

TABLE 6-5 Research questions

Do patients from pre model differ to post model in satisfaction levels as determined by the CAS?
Do patients differ from nurses post model in terms of satisfaction? This is described by the mean responses due to the n of nurses.
Do patients improve in knowledge from admission to discharge post model?
Do patients differ in improvement levels in activities of daily living (ADLs) from admission to discharge, comparing pre model to post model?
Is there a difference in re-admission comparing pre model to post model?
Does the model result in improved discharge planning management? For example, are the nurses completing the checklist?
Were there fewer unplanned patient re-admissions following model implementation compared with pre model implementation?
Did patients who received education regarding medications have greater knowledge of their medications than those in the pre model group who did not receive education?

6.11.1 Data collection within the action research cycle

These tools included the valid and reliable instrument including the CAS survey[14], Barthel ADL Index, the MMSE[12, 13] and assessment of the investigator developed Medication Regime tool and Discharge Planning Checklist. The timeframe for collection increased to six months due to changes in the conditions of the patients on the ward during winter. The ward was also isolated for two weeks, because of an outbreak of gastroenteritis in both patients and nurses. There were continued high levels of co-morbidities in patients, which prevented a large number of the patients from being recruited to the study. The eligibility criteria for the patients were the same as the eligibility criteria used in Phase One of the study. A new information sheet was given to participants regarding the model of nursing care and how they would participate in Phases Two and Three. Except for the new information sheet and consent forms, the steps mentioned in Phase One to ensure ethical principles

were followed remained unchanged for Phases Two and Three. All ethical principles regarding freedom to participate/withdraw from the study at any time, informed consent and protection of their privacy in data reporting were observed.

Before approaching potential participants, the nurses identified eligible patients that could be approached. A total of 18 SWP meetings took place prior to the evaluation phase. The participants were re-surveyed using the original CAS survey from Phase One. This was used to evaluate the effectiveness of the model of nursing care in meeting the needs and satisfaction of patients. In consultation with the nurses and NUM, eligible patients were identified. Once participants were identified, they were given an information sheet about the purpose and nature of the research, shown the survey, and the Discharge Planning Checklist, Medication Regime Card and Barthel ADL Index were explained to them. Any questions they raised were answered before gaining their informed consent to participate. Participants were reassured of their rights in relation to the ethical guidelines. Where required the 50 items on the CAS were stated, repeated and clarified.

Once informed consent had been gained from participants they then had the Discharge Checklist, Medication Regime Card and Barthel ADL Index inserted into their bedside folder to be completed. The satisfaction CAS survey was then administered. Mornings always appeared to be a better time for the patients rather than afternoons, one of the limitations in this data collection process. Approximately 80% of the ward population was unable to participate during the evaluation phase as they did not meet the eligibility criteria. This limited the number of participants available to participate in these phases and identifies one of the challenges to deriving patient reported outcomes in the aged care setting.

6.11.2 Analysis and Evaluation of data

The process of data analysis for quantitative data remained the same as described in Chapter Five for data analysis Phases Two and Three (SPSS version 11). The four tools were analysed using descriptive statistics, chi-square analysis and ANOVA tests. The tools included the satisfaction component of the CAS survey data from the patients and nurses, Discharge Planning Checklist, Medication Regime Card and Barthel ADL Index [(15)] from the patients.

6.12 Identified evidence to support Model of nursing care development

6.12.1 CAS Findings

As stated in Chapter Four, there were 50 items in total in the CAS, which were broken down into 4 categories: physical, psychosocial care, implementing doctor's orders and discharge. Significant differences were found on these four categories overall when comparing the pre and post model patient groups on satisfaction. The CAS was administered to two participant groups, namely nurses (n=14) and patients being cared for in aged care acute care settings (n=56). There was no significant results found for the nurses due to the low participant numbers.

Significant differences were also found between the pre model and post model patient groups on satisfaction for all four categories, with the post model group more satisfied than the pre-group model group (p<0.001) (see Table 6-6). A summary of ANOVA results comparing differences on satisfaction between patients pre and post model on all four categories is shown below in Table 6-6.

TABLE 6-6 Differences between patients pre and post model on four categories

Source: Patients Satisfaction	MS Effect	df	MS Error	F	*p*
Physical care	20.04	1,110	0.25	80.07	<0.001*
Psychosocial care	59.91	1,110	0.317	188.71	<0.001*
Doctors' orders	6.90	1,110	0.265	26.043	<0.001*
Discharge planning	143.3	1,110	0.597	239.9	<0.001*

Note: *significant at $p<0.001$

6.12.2 Comparison of mean scores

A comparison of mean scores for patients suggested that they were highly satisfied with all areas of care (see Table 6-7 for means) post model vs. pre model

TABLE 6-7 Means, range and standard deviations for the four categories of patient satisfaction pre and post model (n=56)

Variable		Mean	Range	SD
Physical care				
	Pre model	3.92	2-5	0.64
	Post model	4.77	3-5	0.32
Psychosocial care				
	Pre model	3.18	2-4	0.60
	Post model	4.65	3-5	0.53
Doctor's orders				
	Pre model	4.33	3-5	0.63
	Post model	4.82	3-5	0.37
Discharge				
	Pre model	2.54	0-5	1.01
	Post model	4.80	3-5	0.40

6.12.3 Findings in Barthel ADL Index

A Barthel ADL Index was used to assess the impact of the model of activities of daily living (see Table 6-8 for summary of results).

There were significant differences between Barthel ADL scores from pre to post model overall (p<0.001). As shown in Table 6-8, the post model scores were greater overall, indicating more independence. There was also a significant interaction between groups and Barthel ADL scores (p<0.001). That is, differences in Barthel ADL scores over time were dependent on the particular group. Post-hoc Sheffe tests showed that differences in Barthel ADL scores from pre to post model were significant only for the post model group (p<0.001). The rates of improvement from admission to discharge were greater for the post model group.

TABLE 6-8 ANOVA results for mean differences between the pre and post patient model groups on Barthel ADL index scores from admission to discharge

Patients	MS Effect	df	MS Error	F	*p*
Groups	5.1	1,94	21.18	.241	0.624
Barthel	556.76	1,94	4.79	116.12	<.001*
Interaction (Groups* Barthel)	269.20	1,94	4.79	56.14	<.001*

Note: *significant at p<0.001

6.12.4 Medication Regime Assessment of knowledge levels

A paired t-test was conducted for the post model patient group, which suggested significant improvements had occurred in patients' knowledge of their medications from admission to discharge (p<0.001) following implementation of the nursing model; see Table 6-9.

TABLE 6-9 Paired Samples (*t*-test) Test for Medication Regime Assessment

	***t*-test**	**df**	**Sig. (2-tailed)**
Medication knowledge on admission post model & medication knowledge on discharge post model	-7.306	55	<0.001*

Note: *significant at $p<.01$

6.12.5 Comparison of patient readmissions pre to post model

Although this study was not empowered to assess re-admissions, this was assessed for two reasons, firstly to identify any trends in re-admissions, and secondly to empower the nurses in assessing and monitoring indicators of nursing interventions. For the pre model participant group, 6 out of 41 patients (15%) from the ward in which the model was implemented were re-admitted, while 10 out of 56 (18%) were re-admitted post model. A chi-squared analysis showed that these frequencies were not significantly different ($\chi^2=0.33$, df=1, $p=.57$).

6.13 Discussion Phases Two and Three findings

Phases Two and Three represented the development, implementation and findings of a model of nursing care. The INHospital Study was designed to involve nurses in the development of an evidence-based model of nursing care to improve the care of older patients using an action research framework. The action research process incorporated implementing a new team nursing model under a 'person-centred care' philosophy as opposed to organisational imperatives and traditional care models.

The action research process also included educational sessions for nurses and older patients concerning their medication regime and physical care activities of daily living and discharge plans. The INHospital Study addressed areas that patients saw

as important aspects of nursing care but were not satisfied with, including medication knowledge and encouraging functional independence. In addition, the INHospital Study also focused on areas of care that patients did not feel were as important, such as discharge-related care. One of the implications of the incongruence between nurses and patients was the importance of discharge planning; the nurses felt that they needed to fulfil a greater role in communicating why discharge planning is an important aspect of patient care, particularly with older people. A limitation of this study is that patient perceptions of discharge planning were only measured while the patients were in hospital and an interesting area for future research would be to see if the patients' rating of the importance of discharge planning changed once they were at home, and they realised the significance of good discharge planning.

The model of nursing care resulted in increased patient satisfaction and improved outcomes, such as increased knowledge of their medication regime and physical activities of daily living prior to discharge. Both patients and nurses had higher levels of satisfaction with care provided during model implementation compared with pre model patient and nurse ratings. One exception was the category doctor's orders. However, this aspect of care was rated highly in Phase One findings, and continued to be rated high during model implementation. This indicates that nurses are consistently meeting older patients' needs in this area of care, a finding supported by other research with older patients and nursing staff[17-19]. Increased satisfaction ratings as a result of the implementation of the INHospital model of nursing care provides support for the contention that congruence between nurses' and patients' perceptions of important aspects of nursing care is important in ensuring patient and nurse satisfaction.

The qualitative data collected in Phases Two and Three provided additional information throughout the action research cycles while also formalising the communication processes during those cycles. Underpinning all the action research cycles was the continuous collaboration and communication between the nurses and the active involvement of management. The current literature supports the contention that interventions rely on communication across the care continuum to improve patient outcomes [7-9, 20]. A summary of the key strategies undertaken as part of the INHospital Study is presented in Table 6.10, with the rationale provided for this change.

TABLE 6-10 Summary of INHospital interventions

Before INHospital Study	Rationale	After INHospital Model
No formal ward philosophy	A ward-based philosophy driven by the patient's perspective	Person-centred philosophy
Traditional task allocation	Minimise individual burden of nurses Identification and management of high risk individuals Promote cohesion among nursing team	New team nursing approach
No integration of discharge form or check-lists across the care continuum	Increase integration of discharge planning process across care continuum	Admission and Discharge Check-lists to complement new discharge form
No formal medication assessment	Gain baseline and then increase patient's medication knowledge prior to discharge and target at risk patients and link them to pharmacy	Medication Regime Card to measure patient's knowledge on admission vs. on discharge
No formal measure of activities of daily living and assessment of need	Have measurement of an individual's activities of daily living abilities on admission and discharge	Activities of daily living assessment forms

As demonstrated in the action research cycles, essential to the change process was the support of the NUM, who was also supported by the DON, which enabled this change. This kind of leadership promotes teamwork and working in a practical

manner in contrast to an authoritative approach where nurses are told what to do. This is an example of how effective leadership can facilitate change in an empowering way and minimises resistance from those who are implementing the change process[21].

6.14 Conclusion

Although the implementation and evaluation of the INHospital Study has been completed, the action research process continues as a dynamic progression driven by the nursing team. The researcher has ongoing contact with the study setting and after two years the team nursing model continues and is undergoing considerable refinement to meet the needs of patients and staff. On reflection, this success continues due to an emphasis on sustainability in the project design and implementation, despite ongoing challenges of staff shortages and turnover. These issues are discussed in greater depth in the following chapter. The positive outcomes from the INHospital Study are largely attributable to the engagement, commitment and collaboration of the nurses in the ward. In addition, the facilitation of the researcher and the research team provided an enabling context and resources to promote change. The development of a team nursing model, tailored to the specific environment and patient mix, was complemented by addressing specific, observable and measurable outcomes that could be undertaken within existing resources, such as improving medication usage. The following chapter aims to integrate findings and reflections of each phase of the INHospital Study and to address the strengths and limitations of the study design. In addition, issues relating to sustainability will be discussed as well as implications for policy, practice and research to improve the care of the older person in the acute care setting.

6.15 References

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Chapter Seven
Implications and future directions

7.1 Introduction

Chapter Seven summarises the findings of the INHospital Study, integrating key issues derived from the action research cycles. The aims of this thesis were to: 1) undertake a systematic, multifaceted assessment of the needs of older patients, their carers and nursing clinicians in an acute aged care setting to inform nursing care delivery; 2) compare satisfaction with, and importance of, nursing care between patients, their carers and nursing staff; and 3) develop, implement and evaluate a model of nursing care in an acute aged care setting. Over the preceding chapters the development, implementation and evaluation of the INHospital Study have been described. This chapter also identifies recommendations and implications for future clinical practice development and research, with particular emphasis on 1) sustainability and 2) empowering nurses as change agents in improving outcomes for older people through refining care delivery.

As outlined in this thesis, globally, the population is ageing, emphasising the need to address the needs of the older person[1-3]. There is both a positive and negative

discourse in the literature concerning population ageing, the effects of this on society and the best strategies of management[4]. Regardless of the stance on ageing, increased longevity often comes with a price of multiple chronic conditions, requiring acute care intervention to manage exacerbation and disease progression[5]. Functional and cognitive impairment, as well as alteration in physiological status, mean that encounters with the acute care system are often problematic for older people[6, 7].

Research demonstrates that the older person is at increased risk of iatrogenic complications, such as drug interactions, falls and poor health outcomes following discharge from hospital, often leading to an increased risk of readmission[8, 9]. As discussed in previous chapters, the reasons for this high risk are complex, multifaceted and are not only due to patient-related factors, such as increased falls risk, but also to system and provider issues, such as the nursing workforce shortage and the lack of gerontological expertise[10, 11]. These factors compel nurses and other health professionals to explore models of care that are evidence-based and tailored to meet the needs of older people.

7.2 Summary of INHospital Study

As discussed in Chapter Four, the INHospital Study design used an action research framework so that nurses could be empowered in their workplace and have a sense of control and ownership of their practice. Nursing care is a critical factor in improving the care of older people in the acute aged care setting[12]. In order to improve nursing care, nurses need to reflect, review and engage with their practice[13]. Achieving this level of understanding, engagement and ownership enables nurses to interact positively with other health care providers to negotiate the nursing role within the broader health care team[13, 14].

The first two action research cycles in this study played a critical role in diagnosing, planning and identifying characteristics of the INHospital Study setting. While planning this research, the researcher was unable to locate any studies that examined the perceptions of older people, carers and nurses at one point in time in acute aged care wards. Investigating the congruence in needs between patients, carers and clinicians was considered critical for developing a model of nursing care. To date, studies have tended to investigate only one view or perspective of the illness experience and not within specialised acute aged care units. Integrating a range of perspectives has the potential to glean important factors in improving nursing care. Therefore, involving carers in the INHospital Study has been a useful contribution to informing service delivery as carers play a critical role in meeting the needs of their significant others[15]. Carers can provide the views and experiences of older people that may not be readily accessible because of an illness or cognitive impairment. In many ways family members or carers serve as proxies, particularly with aged and vulnerable patients. Research into carers' perceptions of the experiences of older patients is useful in the development of care plans[9, 15, 16] and for this reason carers were considered key stakeholders in this study. The lack of perception of their needs, described by patients and nurses in this study, underscores the importance of considering their needs and identifies an important area for future research.

Investigating the levels of importance and satisfaction with nursing care for acutely ill older people as perceived by older people, their carers and nurses in this study revealed several issues. Not all aspects of care were perceived as equally important, which has major implications for planning and achieving patient satisfaction with care. In fact, the only area of shared agreement related to the importance of implementing, observing and reporting doctors' orders. This finding is supported by

other research with older people and nurses[17-19]. Older people's expectations of care were not as high as those of nurses or carers, except for the category of following doctors' orders. For example while nurses and carers rated physical care, psychosocial care and discharge-related issues as being high priorities, older patients' expectations were lower those of nurses and carers.

These findings resulted in the need to review methods of care delivery and resource allocation in order to effectively address the care needs of older people and their carers. A key driver for the development of a new model of nursing care was the frustration expressed by nurses who perceived that they were unable to deliver effective care, satisfactorily addressing the concerns of patients and their carers in the current pressured acute health care environment. The lack of congruence between the priorities of patients and nurses underscores the importance of encouraging patients to be involved in the care planning process. Encouragingly, nurses involved in Phase One of the INHospital Study saw the potential for improving the delivery of clinical care and were excited to have an opportunity to participate in developing interventions to improve the patient care process. Engaging nurses in the action research process provided them with a unique opportunity to engage in reflective practice and shaping change processes to reconfigure ward activities to enhance care delivery.

It must be acknowledged that measuring patient satisfaction is a complex undertaking with a range of methodological limitations, particularly floor and ceiling effects[20]in respect of study instruments. It is also likely that the perception of satisfaction is influenced by the needs of the individual patient[21]. The use of qualitative data enabled exploration of this within the INHospital Study. Future studies exploring patient satisfaction in the outcomes of person-centred health care

also need to be explored[22]. Further, developing reliable and valid measures that identify the scope for clinical practice improvement suitable for use in the acute aged care setting should also be considered.

Phases Two and Three of the INHospital Study included an additional four action research cycles which encompassed developing, implementing and evaluating a model of nursing care in an acute aged care setting. The use of the collaborative processes of action research provided a structure through which the nurses had the opportunity to explore their opinions, reflect on their practice, increase their level of responsibility for their clinical practice, and be empowered to grow and evolve to a level where they could assume ownership and plan for change. Given the current pressures in the acute environment[12], it was critical that all change be implemented slowly and used participatory processes that were clearly communicated to all acute aged care nurses. As supported by McGilton et al[23], nurses can often feel more positive about their role and their potential to meet patients' needs as they develop and improve their communication skills. Underpinning the changes contemplated in the INHospital Study was a desire to enhance the continuity of person-centred care through adopting an approach to nursing care that embraced a collaborative team approach. Borbasi et al.[24] discuss that nurses have the potential to be responsive to change under the correct leadership. With the support and leadership of management in the study setting, the proposed model required a move away from a traditional task based nursing model to a new team nursing model underpinned by a philosophy of person-centred care[13].

In this phase of the study, nurses developed a model tailored to the environmental considerations of the clinical setting and workforce needs. This approach to delivering clinical care provided support for nurses through the provision of

preceptorship, mentorship, leadership and professional development[12, 13, 24]. This collaborative support was required to minimise individual burden, and address many of the issues raised in the SWP meetings and nurse ward meetings, such as difficulty in meeting all the demands of the busy clinical setting. Throughout this process the support and leadership of management was critical to the ongoing development and empowerment of nurses and helped ensure the sustainability of the organisational changes required as part of the new approach to care. Therefore this study demonstrates the importance of clinical leadership and organisational support to drive practice change.

As part of this phase, nurses decided to focus on aspects emerging from the study data that identified areas for improving nursing care. These included: 1) discharge planning and communication, and 2) medication management and education. These changes had to be made within existing resources and the additional support provided by the researcher facilitated this process. The development and implementation of a Medication Regime Assessment Form, new Discharge Planning Form and Discharge Checklist Form were key steps required to commence implementation of the model of nursing care on the acute aged care ward (Appendix 8 and 9).

The final action research cycle focussed on the evaluation of the new model of nursing care. The modified CAS survey demonstrated that following the implementation of the model of nursing care, older people were more satisfied overall with their: 1) physical care, 2) psychosocial care, 3) the degree to which doctor's orders were implemented, and 4) their discharge planning process. In addition, post model patients were more satisfied with the individual categories of care than were the pre model patients. There were significant differences between

Barthel ADL Index scores from pre to post model overall for patients, indicating more independence and suggesting the effectiveness of the model of nursing care and the focus on a patient-centred care approach. There were significant improvements in older people's knowledge of their medications from admission to discharge, with the use of the medication regime assessment tool. As discussed in Chapter Six, these findings should be considered with the caveats associated with a non-equivalent group, pre-test, post-test study design. Yet in spite of these methodological limitations, engaging nurses actively in critiquing and modifying their practice to impact on patient outcomes can only be seen as a positive impact of the study[14].

Medication management in the older person is a critical issue in impacting on health related outcomes and remains a challenging problem[25, 26]. The impact of the medication management strategy in the INHospital Study suggests that nurses can intervene positively to improve medication management within existing resources. The collaborative networks developed with the ward pharmacist were encouraged and promoted by the researcher.

7.3 Impact of the INHospital Study and the Key elements

As discussed in Chapter Two, Table 2-1 presents several key elements that inform the model of care development[27, 28]. The direct relationship of these key elements to the INHospital Study Model development is expanded on below.

7.3.1 Evidence-based and/or grounded in theoretical propositions

The evidence-base for the INHospital Study had to address the unique needs of the acute aged care setting. Older people have high levels of physical, social and psychological needs due to their health status which is commonly defined with multiple co-morbid conditions[3, 29]. The literature review described in Chapter Three

provides some useful strategies in moving forward in delivering care, yet also illustrates the limited evidence for a model of care development, relative to the burden of population ageing[30, 31]. Intervention used as part of the action research process incorporated elements of previous interventions shown to improve clinical outcomes, such as improving communication and identifying risk factors.

7.3.2 Inclusive of consultation with key stakeholders

The inclusive processes of action research used in the INHospital Study ensured the involvement, participation and consultation with key stakeholders, formally and informally. A potential limitation of this project is that it could be considered nurse-centric. It was the decision of the project team to focus on refining a model of nursing care, appropriate to local conditions, within the domain of aged care philosophy and evidence-based practices. Nurses were mindful of the multidisciplinary care needs of the older patient, yet initially nurses were keen to focus on refining specific nursing practices. In spite of this, inclusion of literature and policy documents in formulating care allowed reference to a range of key stakeholder perspectives[1, 3, 32]. Nurses' desire to embrace control of their practice can also be seen to be a positive aspect of this study and reflects the enabling and empowering aspects of the action research method.

7.3.3 Be based upon assessment of patient and health provider needs

Phase One (See Chapter 5) has provided a systematic, multifaceted needs assessment of older patients, their carers, and nursing clinicians in an acute aged care setting. This process of engagement and empirically derived data regarding needs, this was considered to be of importance to the assessment of the needs of patients, carers and nurses for the INHospital Study[33, 34]. Undertaking processes that seek to assess the needs of consumers and be responsive to these findings is important in tailoring

nursing care to be appropriate to a range of clinical and practice settings. Taking this approach also minimises the potential for providing care that is based upon ritual and habit rather than considering the needs of the individual[34].

7.3.4 Considerate of the safety and well-being of nurses

Nurses can be a marginalised group in health care organisations, where particularly, clinical nurses feel that they have limited input into management decisions[35].The INHospital Study supported nurses in increasing their sense of control and power to direct and modify changes within the clinical environment. The challenges of retaining nurses in the work-place are well documented and the reasons debated for this include low levels of satisfaction as well as role burden and conflict[13, 35]. Increasing the nurses' sense of control over their workplace and modifying practices to improve levels of support were seen to be a positive step in promoting the well-being of nurses[13, 35].

7.3.5 Involve a multidisciplinary approach where applicable

The model of nursing care in the INHospital Study was developed to consider the relationship of nursing care within the multidisciplinary framework of the acute aged care setting. Considering the impact of nursing care and how this impacted on adhering to physicians' recommendations and other members of the health care system are key considerations. The INHospital Study setting was in a specific acute aged care ward, which is an environment where all patients are under the expertise of a gerontological team. Although this study focused primarily on the nursing care of the older person, this care was delivered within a philosophical framework where a multidisciplinary context and gerontological expertise were inherent values[36].

7.3.6 Optimize equity of access for all members of society

A key premise of the INHospital Study was improving outcomes for the older person through increasing their access to appropriate care particularly with gerontology expertise being identified as an important strategy in improving outcomes[36]. Access is more than geographical access to a healthcare system. It also involves the full continuum of health services that are indispensable to maintaining older people's health outcomes. It is essential that older people have not only initial access but also continued access as barriers to access and premature discontinuation of care or services such as inappropriate discharge planning may lead to repeated admissions[37].

7.3.7 Include interventions that are culturally sensitive and appropriate

It is evident that in many care settings, interventions are inappropriate to the needs of the older person. Issues of cultural needs are also often emphasised in older populations although it is well documented that culture influences all spheres of human life and can be integral to defining health, illness and self identity[38]. Although culturally sensitive issues were not a discrete focus of the INHospital Study, implicit in addressing the unique needs of individuals is addressing specific cultural needs and the importance of this area of research is well documented in our currently multicultural society[39]. This is an important area for future research.

7.4 Factors driving the action research project- A collaborative solution

Important factors in improving care of the older person in the acute care setting hinge upon appropriate expertise, collaboration and communication across the care continuum[36]. The action research process, promoting empowerment and reform, is

closely aligned with a range of strategies to improve clinical practice. Critical reflection, discourse and challenging the status quo are all critical elements of health care reform[40]. Based upon the key factors addressed in the INHospital Study the following INHospital Model was developed as shown in Figure 7.1. In this model a funnel approach has been used to show the flow of factors through macro, meso and micro levels. The development of the INHospital Model was dependent on a positive policy environment[3], an enabling clinical environment[32] that focuses on positive outcomes and importantly the assessment and consideration of the needs of the individual and their family. In order to develop models of nursing care that are person centred a range of interrelated and connected processes need to be considered, and these are demonstrated in the Model in Figure 7.1.

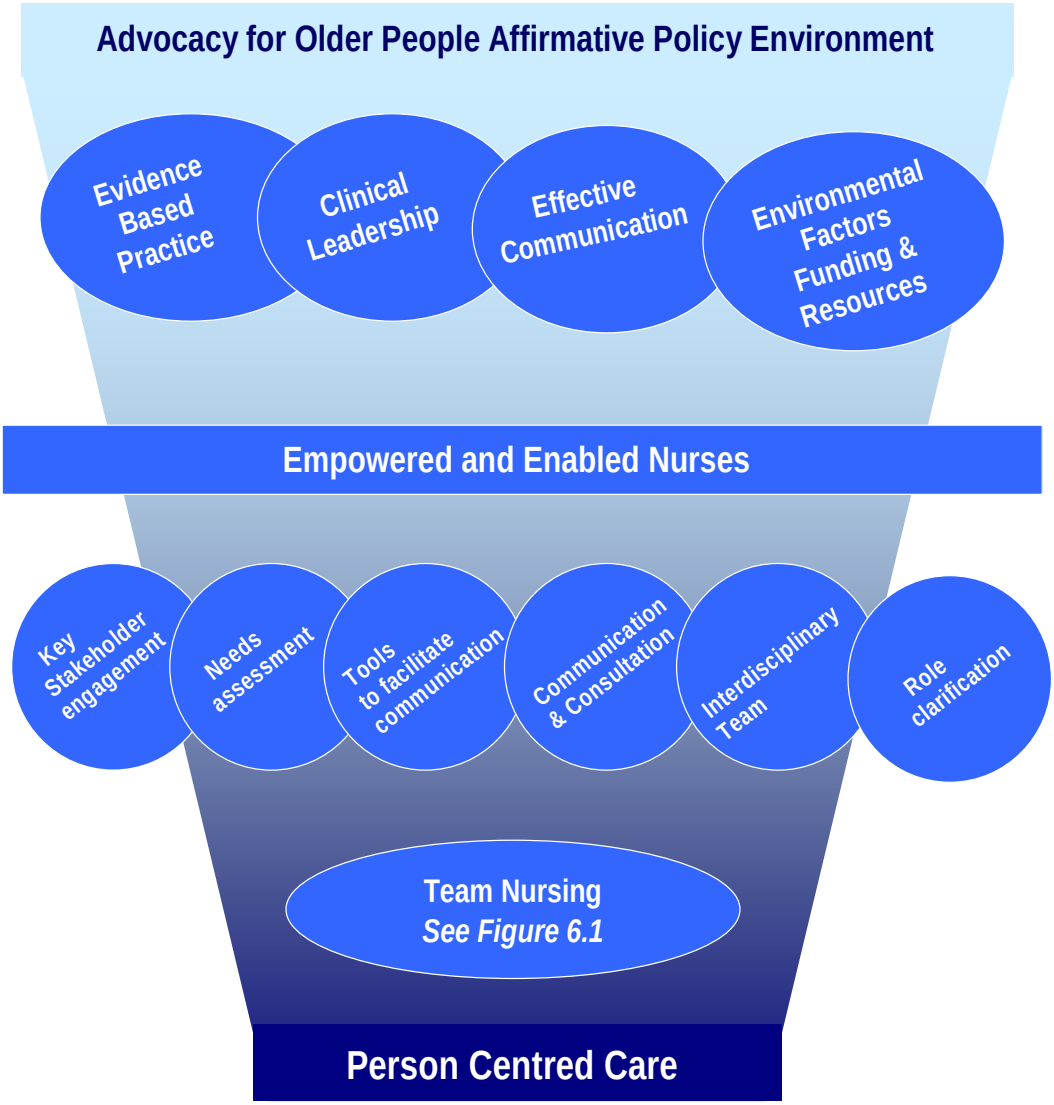

FIGURE 7.1 Achieving advocacy for older people through an affirmative policy environment

7.5 Will the benefits of the INHospital Study be sustained?

The concept and definition of sustainability has been described in Chapter 2. Issues of sustainability and incorporation of research findings within usual care are inherently problematic[41]. Action research renders greater chances for integration and sustainability of best practice by actively engaging key stakeholders in both the design and implementation processes[42-44]. Although measuring sustainability is

challenging, several factors confer some optimism in the INHospital Study in determining the integration of the research process and findings in usual care. Firstly, the incorporation of a person-centred, outcome focussed agenda into the governance of the ward bodes well for the adaptation and sustainability of the strategies developed as part of the INHospital Study.

The approach undertaken in this study is consistent with Mc Cormack and Mc Cance's[45] philosophy of person centred care. These authors identify four elements of person-centred care that need to be considered[45] 1) the attributes of the nurse, 2) the environment, 3) the situation in which care is delivered and 4) the processes in place to enable person-centred care, such as a focus on the delivery of care through activities and expected outcomes. The INHospital Model has embraced these key concepts. Promoting a multifaceted, systematic and inclusive perspective towards model development is more likely to promote sustainability of positive aspects of the model[31]. Informed by the extant literature and Mc Cormack and Mc Cance[45], the INHospital Study sought to leverage the following processes in promoting sustainability these included: promoting clinical leadership; capacity development in project and change management; involvement of key stakeholders, promoting of evidence-base practice interventions; facilitating organisational change; engaging in quality improvement activities; and reflective practice[46, 47]. Of particular significance for this project, the potential to continue to develop and refine nursing care in the acute aged care setting is dependent on effective management processes[48] and promotion of clinical leadership[48, 49]. Integrating these processes into ward activities was an important strategy of the INHospital Study in driving clinical practice improvement. A key focus of the project meetings was communication and the dissemination of findings. The project team were mindful

that successful interventions rely heavily on effective communication in the clinical practice setting to improve patient outcomes[36].

There is very little literature available that looks specifically at sustainability within the acute aged care environment[31, 50]. Health care is delivered in a dynamic not static context and the previous chapters have outlined the range of factors impacting on acute aged care[47]. Using an action research process means that it is more likely that changes will be sustained in the study setting once the researcher has left, compared with other experimental models of intervention development and evaluation[51, 52]. This is largely because interventions are developed with participants rather than imposed upon them[51].

7.6 Study findings within the context of published studies

The existing literature[53-56] suggests that the methods of delivering care to older people in the acute care setting are often not commensurate with their needs. The INHospital Study has described the mismatch in perspectives and provides useful data to inform the care of older people in the acute care setting, for example, the need for promoting the critical role of discharge planning to patients, carers and nurses to achieve safer and better health outcomes for older people following discharge from the acute care setting.

As is to be expected in an acute care situation, the emphasis often remains on the 'here and now' with a limited view towards the post discharge period, particularly from the perspective of patients. For older people, unexpected hospitalisation may require time for the processing of information. The development of transitional models to prepare patients for discharge may be useful[57]. This low priority given by patients to the post discharge period likely explains the high rehospitalisation rates in

conditions such as heart failure and chronic obstructive pulmonary disease[58]. Although nurses can engage in discharge planning processes, there needs to be reciprocity on the part of patients to make this work effectively. Identifying mechanisms to actively engage patients and their families in this process should likely improve health outcomes and is a fertile area for further investigation.

The high importance patients place on physical care and nurses' adherence to doctors' orders should not be ignored in planning and evaluating care. These data also have implications for interdisciplinary practice in acute care settings[53, 54, 59, 60]. Achieving congruence among members of the health care team is advisable to eliminate conflicting goals in care delivery. This also implies that consistency among health messages and treatment instructions should be a priority across members of the health care team. It also flags a potential for conflict if the goals of nurses and medical care diverge. Promotion of effective communication strategies and interventions to promote care continuity in transitional care are likely to be important in optimising health outcomes[36].

7.6.1 INHospital Study Strengths

An important strength of the INHospital Study was the use of an action research approach adopting a mixed methods design, enabling a depth of confirmation and completeness of data that neither a singular qualitative nor a quantitative approach could offer in isolation[61, 62]. The action research framework of the INHospital Study has driven clinical change through facilitation of practice change and collaboration among key stakeholders to promote the sustainability of team work, such as the process of instituting regular team meetings. Meyer and Sturdy[13] in their article explore the future of gerontological nursing and support the need for action research, processes and collaboration among stakeholders. Empowerment and engagement

have provided an opportunity to implement critically informed action where changes are thought to be achievable and sustainable[51, 63-65]. Embedded in the action research framework of this study have been a series of studies that have observed methodological and conceptual congruence. The process of engagement with nurses has not only promoted critical reflection on their practice but also provided them with a suite of skills to implement and evaluate changes in the clinical setting. Using empirically derived data sets, complemented by reflective practice, have provided nurses with tangible skills to develop their clinical practice. The INHospital Study has shown that small changes in the clinical environment, that are resource neutral, can impact favourably on satisfaction with nursing care.

The use of the action research methodology has also promoted empowerment and change on a number of levels. Over the course of the project nurses individually became more confident about expressing their issues and concerns and collectively nurses increased their confidence about changing their clinical practice and interacting with other providers. This is illustrated in their negotiating medication strategies with the hospital pharmacist and negotiating with management to reconfigure models of care. The engagement of the researcher in the practice environment has also been an enabling factor and illustrated the power of the partnership between the academy and clinical practice setting to improve patient outcomes[35].

7.6.2 INHospital Study Limitations

In spite of the strengths of the INHospital Study described above, several limitations are acknowledged. Firstly, the exclusion of medical and allied health clinicians as formal partners in the research could be interpreted by some as a limitation, particularly within the context of multidisciplinary care. Given the high perceived

importance placed on doctors' orders, not formally engaging medical clinicians and other members of the health care team may be a factor in retrospect the research team may have considered. However, the nurses in this study gave a strong sense of wanting to get their own house in order first before formally engaging with other professional groups. In order to be compatible with action research methods, this perspective needed to be respected and observed. In future studies it may be useful to explore the perspectives of other members of the health team. In spite of the lack of formal involvement, many non-nurse clinicians contributed to the model of nursing care on a consultation basis and as part of team meetings and case conferences. For example, the pharmacist was actively involved in the medication initiatives.

Furthermore, the patient and carer dyad was not fully explored in this study and it may be useful in future studies to investigate the level of congruence in the needs and satisfaction of both parties. Given the pragmatic issues of researching acute aged care patients and the difficulties faced with gaining data from this group of participants, these patients were considered as representative as possible of acute aged care patients as a proportion of older patients were not able to participate in the study due to severe cognitive and functional impairment. Thus the INHospital Study sample is biased towards those who had sufficient cognitive levels, were well enough to answer the survey questions and who were able to communicate in English. In order to overcome this limitation carers were invited to contribute in cases where patients were not eligible.

The dynamic format of the action research process is a double-edged sword. The flexibility of the method allowed evolution of the 'intervention' process and hence made it more challenging to describe key elements and use measurement process. Sampling methods preclude the ability to extrapolate findings beyond the study

setting. In spite of this limitation, the findings are likely applicable to other acute settings, particularly within the context of the Australian health care system.

On the balance of strengths and limitations the potential to improve patient outcomes and actively involve clinicians and patients in a collaboratively derived model of care, counters criticism of methodological issues of the action research process.

7.7 Significance of the INHospital study

The INHospital Study has addressed areas of importance, such as discharge planning, for the care of older people. The study has used a collaborative and empowering framework generating positive outcomes and valuable insights in the aged care experience. Key areas of significance are summarised below.

Firstly, the study addresses an issue of significant importance in the context of population ageing. Secondly, it has increased the visibility and scholarly discussion of an issue that is of critical importance for nurses, health care professionals and communities. Thirdly, it is one of the first studies to actively engage nurses, patients and their carers in a collaborative model of nursing care in the Australian health care system. Fourthly, the action research framework has afforded benefits in terms of key stakeholder engagement, empowerment of clinicians, promotion of clinical leadership and a negotiated agenda in improving health outcomes for older people and sustainability. Finally, this study has gathered important empirical data to inform future intervention and descriptive studies to improve the care of older people in hospital.

This study is significant because it has demonstrated the capacity of the action research process to improve nursing care quality for older patients in an acute setting. Although the study can be criticised for being nurse-centric, nurses play a critical

role in the care of older people[24]. The quality and nature of this care is important in determining effective patient outcomes[24], this also provides a starting point for future models to investigate multidisciplinary approaches. Key aspects of the INHospital Model have included looking at the relationship between organisational and professional factors within a person-centred nursing model. Examples of these include tailoring ways of organising nursing work to accommodate the needs of people in the acute care setting Within the INHospital Study striving to embed the premises of action research, empowerment and reflexivity[51], have been useful in promoting an integrated philosophy of continually reflecting on practice and empowering clinicians to engage organisational change to improve the care of patients and their working lives[51, 52]. Adopting this approach in other settings may provide the opportunity for developing collaborative models of care for older patients.

The results of the study presented in this thesis are significant to administrators in informing new ways of exploring what patients and their carers consider to be important in achieving high-quality care. While increased patient satisfaction has the potential to lead to better patient outcomes[35], it is also the case that nurses who have satisfied patients are also likely to obtain greater job satisfaction, leading to greater retention of nurses and superior quality of care. Not only will hospitals ultimately benefit in terms of cost-effectiveness, this study is of social significance in ensuring that the rights of older people are upheld and that hospitals offer therapeutic and efficient services[13, 57]. The use of action research can also assist nursing staff to work together as a team rather than in isolation. Specifically this approach can improve communication between nurses and enhance continuity of care and nurses' knowledge of the patients and their conditions. Communication can be improved

between nurses and patients while simultaneously improving patients' knowledge about their condition and treatments by nurses educating patients while at the same time providing nursing care.

This study acknowledges patients'' needs and the understanding of their expectations of the nursing profession[12]. From this perspective the results are valuable not only for clinical practice but also for nursing education as they can provide nurses with skills and knowledge to be able to provide specialised nursing care.

7.8 Implications for nursing practice

This study supports the use of empirically derived, evidence-based nursing care models that focus on assessing and measuring the needs of older patients. Increasing nurses' levels of knowledge of their practice and evidence to underpin their practice through the action research process can result in implementation of changes to practice that may result in improved care delivery and health outcomes. Planning changes through the use of action research can assist nurses to find ways of improving care without compromising other aspects of care.

Older patients have multiple co-morbid conditions and ranges of psychological and social issues which can challenge effective health care delivery. Therefore communication across the care continuum for improvement of patient outcomes is crucial, both between and within health professional disciplines. It is important that the individual preferences of the older person be considered so that care can be tailored to meet their needs[12]. This illustrates the importance of communication between nurses and patients. Many older patients value their independence while being hospitalised and nurses should promote strategies to increase their control over their circumstances[57].

Although nurses and patients placed a lower emphasis on the carer's role (as demonstrated in both the findings of the INHospital Study and the literature), carers play a critical, though often less invisible, role in managing the older person in the acute care setting. As the population ages, the role of carers increases in importance and is an important consideration in care planning for both acute and community care settings.

In the current climate of nursing shortages and resource constraints, nurses need to be educated and understand the priorities for older people and their carers[34]. Increasing the profile of aged care is also an important consideration in promoting effective care[66]. Within the context of workforce shortages attracting nurses to aged care is a priority, particularly given the phenomenon of population ageing[67].

Although there is a particular emphasis on discharge planning in INHospital Study setting, it is evident in this sample that this priority was not shared. Older patients may not understand the importance of discharge planning when they are hospitalised. It is therefore important that health professionals assist patients and their families in understanding this priority.

7.8.1 Implications of findings for aged care services

Understanding individuals within the context of the wider society and acknowledging the contributions of these individuals to their families, communities and society[1, 47] can be used to complement the biomedical approach, to enable exploration of three broad areas in relation to health: social patterns; social processes; and social relationships[68]. Exploring the unique needs of older people and their families may assist in addressing issues, such as discharge planning and transitional care that were identified in this study. Understanding the nursing environment is also essential, Richmond et al.[12] describe four attributes that

distinguish a nursing environment that is responsive to the needs of the older adult population these are 1): elasticity, 2) enabling, 3) ease, and 4) equanimity[12]. All change small or large can contribute to creating a more humane health system for patients' families and health professionals. The satisfaction of each can be reliant on the satisfaction of the others therefore collaboration from all stakeholders is needed to improve outcomes[35].

House, et al.[69] also argue that as the population gets older, factors such as socio-economic status and education need to be considered when looking at health outcomes. This would enable some answers to questions surrounding population ageing to be used in developing social theory and public policy.

7.9 Recommendations Generated From the INHospital Study Findings

Recommendations for clinical practice, policy, education, and future research must go hand in hand with the development of policies that eliminate social inequities and encourage social inclusion and economic protection[1].

7.9.1 Recommendations for nursing practice

Notwithstanding the fact that models of care need to be tailored to specific settings and that the individual older person's needs vary, it is recommended that a model of care for acutely ill older people be one that prioritises the importance of nurses' communication with other nurses, the multidisciplinary team and older people[27]. This is a priority in dealing with older people who can often be disadvantaged in the communication process. Using processes from the INHospital Study such as action research and team nursing which foster collaboration amongst nurses to care for the older person, can also enhance communication and foster continuity of care.

Nursing practice needs to ensure that nurses fulfil a role in facilitating information exchange and promoting systems that enable older people to improve health outcomes and maintain independence. In the context of this study, education of patients was needed about why discharge planning is an important aspect of patient care was a focus, as patients did not see this as a priority, in contrast to the nurses. Promotion of the importance of discharge planning to patients, carers and nurses is an ingredient in ensuring the best possible health outcomes following discharge and similarly medication management through the use of Medication Regime Form and education from the nurses in collaboration with the pharmacist.

Nursing practice also needs to ensure that priorities of nurses and patients for nursing care are congruent in order to obtain the best outcomes for patients and nurses, particularly given the inevitably changing health environment. An example is fostering independence in older hospitalised people and improving discharge processes. The INHospital model promoted this independence by administering Barthel ADL Index. The nurses explained and encouraged patients to do as much as possible in order to foster independence. This tool enabled the nurses to provide the appropriate support and refer to the appropriate multidisciplinary team member to address functional limitations.

Nursing practice needs to be responsive and considerate of the increasing complexities of the nursing skill mix in the acute aged care setting[70], which includes nursing leadership and mentoring amongst nurses. The INHospital Study promoted a clinical setting that was enabling, empowering and promoted control over practice, this includes a patient centred care philosophy delivered through a team nursing approach. The INHospital model encourages nurses and nurse leaders to work collaboratively using strategies such as action research to develop and implement

changes in practice to improve patient outcomes. This could foster change which is more likely to be effective and sustainable.

7.9.2 Recommendations for nursing education

The INHospital Study also led to some useful recommendations for the professional preparation of nurses, both at an undergraduate, postgraduate and professional development level. As the population ages it is important that all nurses increase their gerontology expertise to improve outcomes. This education should occur at the undergraduate, postgraduate and continuing professional development sectors. Current research supports the belief that older patients are a population group with specialised care needs requiring specialised nursing skills[71]. The shortages not only impact on nurses, hospitals and patient outcomes but also on education outcomes of nurses[10, 72]

7.9.3 Recommendations for future research

The issue of the older person in hospital is a priority area for future research and is recognised as a priority area[29]. On the basis of the INHospital Study several issues specifically related to the care of the older person have been identified as being important areas future research to improve outcomes:

1 .Investigating the perceptions, needs and role of carers in the acute aged care setting.

2. Developing models of care that are tailored to the individual needs of particular hospital settings and populations, such as people with dementia and specific cultural needs.

3. Developing, implementing and evaluating communication strategies to promote the health outcomes of older people.

4. Exploring the relationship between patient satisfaction in the outcomes of person centred health care also need to be explored

5. Increasing the emphasis on discharge planning for the hospitalised elderly is compelling as a means of potentially reducing length of hospital stay and preventing readmissions. Research should further investigate the link.

7.10 Conclusion

Through the use of action research, the INHospital Study engaged nurses actively in critiquing and modifying their practice to improve clinical outcomes, such as communication and identifying risk factors. This process assisted nurses to achieve a sense of control over their workplace empowering them to modify practice and improve levels of support within the nursing team. Clinical leadership proved essential to the success of this approach and, with organisational support, guided the team to change practice.

The INHospital Study also undertook to assess the care needs and outcomes of the older persons. Furthermore, it was responsive to these findings in tailoring nursing care to provide an appropriate range of clinical and practice settings. This approach challenged both ritual and habit based care practices, by enabling the nurses to orientate the focus of care from the perspective of the needs of the individual. In so doing, a fertile area for further investigation was uncovered related to identifying further mechanisms to actively engage patients and their carers in this process.

An important consumer outcome from the INHospital Study was the significant improvements in older persons' knowledge of their medications from admission to discharge, with the use of the medication regime assessment tool. The interdisciplinary collaborative networks, essential to this study, aided in achieving this outcome. Specifically, the relationship between the ward pharmacist and nurses, who developed the medication management strategy, enabled the improvement of medication management within existing resources.

The nurses in this study gave a strong sense of wanting to take ownership of their own priorities and team processes prior to formally engaging with other professional groups. While the study focused primarily on the nursing care of the older person, this care was delivered within a multidisciplinary philosophical framework where gerontological expertise were inherent values of the ward setting. The INHospital Study has shown that small resource neutral changes in the clinical environment, can indeed impact favourably on satisfaction with nursing care. The engagement of the researcher in the practice environment has also been an enabling factor and illustrated the power of the partnership between the academy and clinical practice setting to improve patient outcomes.

In order to improve the care of older people and their carers in the acute care setting, nurses need to tailor care plans to address their needs. The increasing importance of interdisciplinary care underscores the importance of collegial cooperation to address the needs of older people and their carers. Yet before this can happen, nurses need to be confident in their models of nursing care and interaction with the wider health system. Collaborative and consensus methods that achieve congruence in goals and expectations between nurses, patients and their carers in order to develop appropriate and effective models of care need to be developed, particularly in the acute care

setting. The study findings reported in this thesis underscore the importance of promoting the importance of discharge planning with patients, carers and nurses to ensure the best possible health outcomes following discharge and promote effective transitions.

This thesis has made an important contribution to the scholarly literature. Firstly, it has undertaken a systematic, multifaceted needs assessment of older patients, their carers, and nursing clinicians in an acute aged care setting. Secondly, it has documented the challenges in delivering appropriate care, and thirdly it has collaboratively developed a model, based on empirical data, to improve care delivery. Furthermore, within the philosophical framework of the action research method, this project has systematically undertaken initiatives to promote sustainability of the model.

The findings of the INHospital Study signal that management of the older person in the acute care settings is an important area for future nursing research and scholarship, particularly as the population ages. The importance of improving care for the older person in the acute care settings remains a critical issue to improve health care outcomes.

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Appendix 1 Criteria for Patient Selection

Elderly hospitalised patients needs study: patient information

Insert MRN sticker here	Code:

Current Date:

Diagnosis:

Criteria for patient selection	YES	NO
	Please tick one	
1. Patient has more than maild dementia	☐	☐
2. Patient has a psychiatric illness (eg psychosis, depression)	☐	☐
3. Rehabilitation patient	☐	☐
4. Patient consented	☐	☐

Appendix 2 CAS Survey Instrument – Phase One

Caregiving Activities Survey

Please rate how important you believe it is for nursing staff to provide care in the following areas during your family member's hospital stay, and your satisfaction that this care was provided. If your satisfaction was low then please give possible reasons for this care not being provided.

		Importance						Satisfaction					
		Little				Great	N/A	Poor				Excellent	
1	Take the patient's temperature and pulse	1	2	3	4	5		1	2	3	4	5	
	If Not provided, then why do you think this was the case?												
2	Give or assist the patient with a daily bath	1	2	3	4	5		1	2	3	4	5	
	If Not provided, then why do you think this was the case?												
3	Assist the patient with mouth and teeth care	1	2	3	4	5		1	2	3	4	5	
	If Not provided, then why do you think this was the case?												
4	Provide the patient with a clean, comfortable bed	1	2	3	4	5		1	2	3	4	5	
	If Not provided, then why do you think this was the case?												
5	Help the patient with grooming, such as care of nails, hair and/or shaving	1	2	3	4	5		1	2	3	4	5	
	If Not provided, then												

		Importance						Satisfaction					
		Little				Great	N/A	Poor				Excellent	
	why do you think this was the case?												
6	Be sure that the patient has the necessary equipment – glass, towel, soap, blanket etc.	1	2	3	4	5		1	2	3	4	5	
	If Not provided, then why do you think this was the case?												
7	Provide privacy during the patient's bath and treatments	1	2	3	4	5		1	2	3	4	5	
	If Not provided, then why do you think this was the case?												
8	Take special care of the patient's skin so it does not become sore	1	2	3	4	5		1	2	3	4	5	
	If Not provided, then why do you think this was the case?												
9	See that the unit is clean and tidy	1	2	3	4	5		1	2	3	4	5	
	If Not provided, then why do you think this was the case?												
10	Allow the patient to make decisions about his/her care	1	2	3	4	5		1	2	3	4	5	
	If Not provided, then why do you think this was the case?												
11	Help the patient to assume a comfortable or appropriate position	1	2	3	4	5		1	2	3	4	5	

		Importance						Satisfaction					
		Little			Great		N/A	Poor			Excellent		
	If Not provided, then why do you think this was the case?												
12	Notice when the patient is in pain and give the patient medications if ordered	1	2	3	4	5		1	2	3	4	5	
	If Not provided, then why do you think this was the case?												
13	Change the patient's position frequently	1	2	3	4	5		1	2	3	4	5	
	If Not provided, then why do you think this was the case?												
14	Observe the effects of treatments ordered by the physician	1	2	3	4	5		1	2	3	4	5	
	If Not provided, then why do you think this was the case?												
15	Consider the patient's personal preferences when caring for him/her	1	2	3	4	5		1	2	3	4	5	
	If Not provided, then why do you think this was the case?												
16	Provide bed pan or urinal when needed	1	2	3	4	5		1	2	3	4	5	
	If Not provided, then why do you think this was the case?												
17	Help the patient maintain or restore normal elimination	1	2	3	4	5		1	2	3	4	5	

		Importance						Satisfaction					
		Little			Great		N/A	Poor			Excellent		
	If Not provided, then why do you think this was the case?												
18	Check on bowel functioning and report problems to the doctor	1	2	3	4	5		1	2	3	4	5	
	If Not provided, then why do you think this was the case?												
19	Help the patient in and out of bed	1	2	3	4	5		1	2	3	4	5	
	If Not provided, then why do you think this was the case?												
20	Help the patient get necessary exercise while he/she is in the hospital	1	2	3	4	5		1	2	3	4	5	
	If Not provided, then why do you think this was the case?												
21	Discuss with the patient the amount and type of activity he/she should have at home	1	2	3	4	5		1	2	3	4	5	
	If Not provided, then why do you think this was the case?												
22	Encourage the patient to take more responsibility for his/her own care while in the hospital	1	2	3	4	5		1	2	3	4	5	
	If Not provided, then why do you think this was the case?												
23	Give prescribed	1	2	3	4	5		1	2	3	4	5	

		Importance						Satisfaction				
		Little			Great		N/A	Poor				Excellent
	medications on time											
	If Not provided, then why do you think this was the case?											
24	Teach the patient about the medications that he/she will be taking at home	1	2	3	4	5		1	2	3	4	5
	If Not provided, then why do you think this was the case?											
25	Plan the patient's care so that he/she will be able to rest while in the hospital	1	2	3	4	5		1	2	3	4	5
	If Not provided, then why do you think this was the case?											
26	Provide a comfortable, pleasant environment (proper temperature, free from odours and disturbing noises)	1	2	3	4	5		1	2	3	4	5
	If Not provided, then why do you think this was the case?											
27	Relieve the patient's anxiety by explaining reasons for his/her symptoms	1	2	3	4	5		1	2	3	4	5
	If Not provided, then why do you think this was the case?											

		Importance						Satisfaction					
		Little			Great		N/A	Poor			Excellent		
28	Nurse makes the patient feel he/she is happy to care for the patient	1	2	3	4	5		1	2	3	4	5	
	If Not provided, then why do you think this was the case?												
29	Arrange for the patient's priest, minister or rabbi to visit him/her	1	2	3	4	5		1	2	3	4	5	
	If Not provided, then why do you think this was the case?												
30	Make it possible for the patient to observe his/her religious practices in the hospital	1	2	3	4	5		1	2	3	4	5	
	If Not provided, then why do you think this was the case?												
31	Assist the patient with meals	1	2	3	4	5		1	2	3	4	5	
	If Not provided, then why do you think this was the case?												
32	See that the patient has food and/or fluids between meals	1	2	3	4	5		1	2	3	4	5	
	If Not provided, then why do you think this was the case?												
33	See that the patient's	1	2	3	4	5		1	2	3	4	5	

		Importance						Satisfaction				
		Little			Great		N/A	Poor				Excellent
	food is served properly											
	If Not provided, then why do you think this was the case?											
34	Ask the dietician to serve the patient soft foods that he/she is able to chew	1	2	3	4	5		1	2	3	4	5
	If Not provided, then why do you think this was the case?											
35	Help the patient understand how to plan the diet he/she will need at home	1	2	3	4	5		1	2	3	4	5
	If Not provided, then why do you think this was the case?											
36	Be sure the patient has a copy of his/her diet	1	2	3	4	5		1	2	3	4	5
	If Not provided, then why do you think this was the case?											
37	Talk with the patient about topics unrelated to his/her illness, such as news, hobbies, other interests	1	2	3	4	5		1	2	3	4	5
	If Not provided, then why do you think this was the case?											
38	Plan some diversion or	1	2	3	4	5		1	2	3	4	5

		Importance						Satisfaction					
		Little			Great		N/A	Poor				Excellent	
	recreation for the patient												
	If Not provided, then why do you think this was the case?												
39	Take time to talk with the patient's family and answer their questions	1	2	3	4	5		1	2	3	4	5	
	If Not provided, then why do you think this was the case?												
40	Help the patient make arrangements for his/her care at home	1	2	3	4	5		1	2	3	4	5	
	If Not provided, then why do you think this was the case?												
41	Notice changes in the patient's condition and report them	1	2	3	4	5		1	2	3	4	5	
	If Not provided, then why do you think this was the case?												
42	Tell the patient's doctor that the patient is worried about his/her condition	1	2	3	4	5		1	2	3	4	5	
	If Not provided, then why do you think this was the case?												
43	Be understanding when the patient is irritable	1	2	3	4	5		1	2	3	4	5	

		Importance						Satisfaction				
		Little			Great		N/A	Poor				Excellent
	and demanding											
	If Not provided, then why do you think this was the case?											
44	Take time to listen to the patient	1	2	3	4	5		1	2	3	4	5
	If Not provided, then why do you think this was the case?											
45	Carry out doctors orders	1	2	3	4	5		1	2	3	4	5
	If Not provided, then why do you think this was the case?											
46	Explain about diagnostic tests ahead of time so that the patient will know what to expect	1	2	3	4	5		1	2	3	4	5
	If Not provided, why do you think this was so?											
47	Give the patient pamphlets to read and/or talk with him/her about the illness in order to help him/her understand how to care for him/herself	1	2	3	4	5		1	2	3	4	5
	If Not provided, then why do you think this was the case?											
48	Arrange for a community nurse to visit the patient at home	1	2	3	4	5		1	2	3	4	5

		Importance						Satisfaction					
		Little			Great		N/A	Poor			Excellent		
	If Not provided, then why do you think this was the case?												
49	Talk with the patient's family about the illness and the care he/she will need at home	1	2	3	4	5		1	2	3	4	5	
	If Not provided, then why do you think this was so?												
50	What was your level of satisfaction with the overall nursing care your family member received during this hospital stay?	1	2	3	4	5							

If there are other aspects of nursing care you think are important for nurses to provide, please describe below

If there are other aspects of nursing care that nurses provide that you think are unimportant, please describe below

Appendix 3 Study Checklist

Study Checklist	Please circle
Patient study code	*32*
Patient criteria completed	*YES*
Patient Information sheet given	*YES*
Patient consent form completed	***YES***
Patient MMSE completed	*YES*
Patient Barthel completed	*YES*
Patient discharge checklist and medication regime completed	***YES***
Patient received pharmacy medication summary card	***YES***
Patient has completed the satisfaction survey	***YES***
Patient discharged	*Date ___/___/____*
Readmissions in 28 days	*YES NO*
	Date ___/___/____

Appendix 4 Study Information Sheets and Consent Forms

SOUTH EASTERN SYDNEY AREA HEALTH SERVICE

Patient Information Statement for Project Titled

"The importance of various aspects of nursing care for elderly patients, their family and nurses during hospitalisation"

You are invited to participate in this research project, as your are over 65 years and currently in hospital for an illness. The study seeks your opinion of the nursing needs of patients over 65 years by completing a30-minute interview. You will be asked to indicate your satisfaction with these aspects of nursing care during your hospital stay, and possible reasons for certain aspects of care not being provided (if this is the case).

There are no hazards involved in your participation in this project. Your participation is voluntary and you are permitted to withdraw from the project at any time without penalty or prejudice. A counsellor will be available should you become distressed during the interview. If the answering of these questions reveals any treatment you consider abusive or neglectful and you wish to report it, please contact the Client Liaison Officer at your hospital. If at any stage you feel unwell or too tired to answer questions, the interview process will cease immediately and resume at a more convenient time, if this is your wish.

The person interview you is Louise Hickman, a nurse researcher. Louise will need to have access to your medical records to determine your eligibility to participate in the

study and also to identify whether you return to the hospital for treatment within one month following your discharge. As this is a research project the information form the interview will be coded so that your responses are anonymous. Results of the study will be analysed and publish, therefore, it is important that you give frank answers. Your responses will be used to assist nursing staff improve the quality of care and satisfaction of both patients and staff, however, details of your responses will not be made available to staff or any person other than the chief investigator of this project. The chief investigator is Dr Lynn Chenoweth, who may be contacted on 9639 0288.

Should you wish to make a complaint about the conduct of the research project, you can contact the Ethics Secretariat, South East Health Human research Ethics Committee (Southern Section), St George Hospital, Gray St., Kogarah, 2117. Telephone: 9350 2481. Fax: 9350 3968. Email: leriasd@sesahs.nsw.gov.au

Patient Consent Form

NAME OF STUDY: The importance of various aspects of nursing care for elderly patients, their family members/carers and nurses during hospitalisation.

PRINCIPAL INVESTIGATORS: Professor Lynn Chenoweth, Professor of Aged Care Nursing, South Eastern Sydney Area Health Service and University of Technology, Sydney (02) 9639-0288 and Professor Esther Chang, University of Western Sydney, Parramatta, Ph (02) 9685-9137.

I…….of……

……..

voluntarily give my consent to participate in the 30 minute interview session of this study and acknowledge that I may withdraw from the study at any time and that my refusal to take part in the study will not affect my usual medical care in the hospital;

2. understand that the study will be conducted in a manner conforming with ethical and scientific principles set out by the National Health and Medical Research Council of Australia;

3. understand that the study will be carried out as described in the attached information sheet. I acknowledge that I have read and understood the information provided to me before I sign this consent form,

4. acknowledge that the general purpose, method and demands and the possible risks, inconveniences and discomforts which may occur to me during the study have been explained to me by Louise Hickman, researcher for the project,

5. understand that the researchers may need to access my medical records to determine whether I am eligible for the study and whether I have been re-admitted to this hospital within one month of discharge, and I give permission for access to these medical records,

6. understand that I will not be identified, and my personal information will remain strictly confidential to the extent permitted by the relevant privacy laws,

7. have been given the opportunity to have a member of my family or a friend present while the study was explained to me,

8. have been advised that the study has been approved by the South East Health Human Research Ethics Committee (Southern Section),

9. understand that if I have any complains or concerns, I may contact the Ethics Secretariat, South East Health Human Research Ethics Committee (Southern Section) St George Hospital, Gray St, Kogarah 2217, Telephone 9359 2481, Fax 9350 3968, Email leriasd@sesahs.nsw.gov.au quoting Registration No 00/125

Participant's Signature……..Date……..

Witness Signature…….Date……..

Witness Name (printed)…….

REVOCATION OF CONSENT

STUDY TITLE: The importance of various aspects of nursing care for elderly patients, their family members/carers and nurses during hospitalisation.

I hereby wish to WITHDRAW my consent to participate in the research study and understand that withdrawing from the study will not make any difference to the care I normally receive from hospital staff, nor will it affect my relationship with health staff or the researchers.

Participant's signature…… ___/___/___

Date

Researcher's signature…… ___/___/___

Date

South East Sydney Area Health Service

Nursing Staff Consent Form for Project titled:

"Improving the quality of nursing care and outcomes for older patients in acute aged care settings through using the action research process to implement a model of care"

I_____ agree to participate in this research study, titled as above.

I understand that:

The purpose of the study is to improve the quality of nursing care for older patients in an acute care setting based on the stated needs of older patients, family/carers and nurses while at the same time empowering the nurses who care for them.

Action research techniques will be used in phase two and three of this study. ***Phase two*** has already commenced. This involves providing feedback to all the wards participating in the first stage of the study on the questionnaire and interview findings. Action research techniques will then be used as a framework for the rest of the study duration, as a way of engaging nursing staff in aged care specific wards, by drawing on the findings from phase one of the study. This research technique will be used to facilitate a staff working party, as a way of assisting nursing staff to develop a model of nursing care, which is, relevant to their ward context. Developing the model will involve a continual process of reflecting on the contextual issues

involved, planning strategic actions, and evaluating the actions taken until staff are confident that the model of care is able to meet their needs and be implemented without resistance from staff or patients.

The working party will meet and be conducted at a mutually convenient time. All information will be recorded in a journal and will be confidential to the researcher. Minutes will be taken and checked with the members of the working party prior to been put in the ward folder as to be available to all nursing staff on the ward to see the progress of the study.

There will be no discomfort or hazard to me as a result of my involvement in this study. I am free to withdraw my consent at any time during the course of the study, without any repercussions to me or alter my professional relationships with The Area Health Service, health service consumers, or the principal researchers. Participation is completely voluntary and I will be free to withdraw my consent and cease participation in the study at any time.

I agree:

To participate in the Action Research component of phase two and three of this study.

To participate in a working party where discussions will be documented or tape-recorded where permission is granted, and to discuss the questions or issues regarding the development of a model of nursing care.

That the purpose of this study and the way that it will be conducted has been fully explained to me, so that I am able to give my consent freely.

Any questions concerning this project can be directed to Dr Lyn Chenoweth, on (02) 93690288.

If you have any complaint concerning the manner in which the research is conducted it maybe given to the researcher or if an independent person is preferred, to the Secretary, SESAHS Research Committee, on 93502986

_____Date: __/__/__

Participant or authorised representative' signature

_____Date: __/__/___

Investigator's signature

Revocation of Consent Form

I wish to withdraw my consent to participate in the research study "Unplanned respite care needs for family carers", and understand that withdrawing from the study WILL NOT incur any penalty or censure, nor will it affect my relations with the South East Sydney Area Health Service, Area health staff, health service consumers, or the principal researchers.

_____ Date: __/__/__

Participant or authorised representative' signature.

_____ Date: __/__/__

Investigator's signature.

Appendix 5 CAS Survey Instrument – Phases One, Two and Three

Caregiving Activities Survey

Please rate <u>how important</u> you believe it is for nursing staff to provide care in the following areas during your family member's hospital stay, and your satisfaction that this care was provided. If your satisfaction was low then please give possible reasons for this care not being provided.

		Satisfaction				
		Poor				Excellent
1	Take the patient's temperature and pulse	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
2	Give or assist the patient with a daily bath	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
3	Assist the patient with mouth and teeth care	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
4	Provide the patient with a clean,	**1**	**2**	**3**	**4**	**5**

		Satisfaction				
		Poor				Excellent
	comfortable bed					
	If Not provided, then why do you think this was the case?					
5	Help the patient with grooming, such as care of nails, hair and/or shaving	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
6	Be sure that the patient has the necessary equipment – glass, towel, soap, blanket etc.	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
7	Provide privacy during the patient's bath and treatments	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
8	Take special care of the patient's skin so it does not become sore	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
9	See that the unit is clean and tidy	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think					

		Satisfaction				
		Poor				Excellent
	this was the case?					
10	Allow the patient to make decisions about his/her care	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
11	Help the patient to assume a comfortable or appropriate position	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
12	Notice when the patient is in pain and give the patient medications if ordered	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
13	Change the patient's position frequently	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
14	Observe the effects of treatments ordered by the physician	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
15	Consider the patient's personal preferences when caring for him/her	**1**	**2**	**3**	**4**	**5**

		Satisfaction				
		Poor				Excellent
	If Not provided, then why do you think this was the case?					
16	Provide bed pan or urinal when needed	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
17	Help the patient maintain or restore normal elimination	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
18	Check on bowel functioning and report problems to the doctor	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
19	Help the patient in and out of bed	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
20	Help the patient get necessary exercise while he/she is in the hospital	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
21	Discuss with the patient the amount and type of activity he/she should have at	**1**	**2**	**3**	**4**	**5**

		Satisfaction				
		Poor				Excellent
	home					
	If Not provided, then why do you think this was the case?					
22	Encourage the patient to take more responsibility for his/her own care while in the hospital	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
23	Give prescribed medications on time	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
24	Teach the patient about the medications that he/she will be taking at home	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
25	Plan the patient's care so that he/she will be able to rest while in the hospital	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
26	Provide a comfortable, pleasant	**1**	**2**	**3**	**4**	**5**

		Satisfaction				
		Poor				Excellent
	environment (proper temperature, free from odours and disturbing noises)					
	If Not provided, then why do you think this was the case?					
27	Relieve the patient's anxiety by explaining reasons for his/her symptoms	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
28	Nurse makes the patient feel he/she is happy to care for the patient	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
29	Arrange for the patient's priest, minister or rabbi to visit him/her	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
30	Make it possible for the patient to observe his/her religious practices in the hospital	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think					

		Satisfaction				
		Poor				Excellent
	this was the case?					
31	Assist the patient with meals	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
32	See that the patient has food and/or fluids between meals	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
33	See that the patient's food is served properly	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
34	Ask the dietician to serve the patient soft foods that he/she is able to chew	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
35	Help the patient understand how to plan the diet he/she will need at home	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think					

		Satisfaction				
		Poor				Excellent
	this was the case?					
36	Be sure the patient has a copy of his/her diet	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
37	Talk with the patient about topics unrelated to his/her illness, such as news, hobbies, other interests	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
38	Plan some diversion or recreation for the patient	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
39	TAKE TIME TO TALK WITH THE PATIENT'S FAMILY AND ANSWER THEIR QUESTIONS	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					

		Satisfaction				
		Poor				Excellent
40	Help the patient make arrangements for his/her care at home	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
41	Notice changes in the patient's condition and report them	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
42	Tell the patient's doctor that the patient is worried about his/her condition	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
43	Be understanding when the patient is irritable and demanding	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
44	Take time to listen to the patient	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					

		Satisfaction				
		Poor				Excellent
45	Carry out doctors orders	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
46	Explain about diagnostic tests ahead of time so that the patient will know what to expect	**1**	**2**	**3**	**4**	**5**
	If Not provided, why do you think this was so?					
47	Give the patient pamphlets to read and/or talk with him/her about the illness in order to help him/her understand how to care for him/herself	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
48	Arrange for a community nurse to visit the patient at home	**1**	**2**	**3**	**4**	**5**
	If Not provided, then why do you think this was the case?					
49	Talk with the patient's family about the illness and the care he/she will need at	**1**	**2**	**3**	**4**	**5**

Satisfaction

		Poor	Excellent
	home		
	If Not provided, then why do you think this was so?		
50	What was your level of satisfaction with the overall nursing care your family member received during this hospital stay?		

If there are other aspects of nursing care you think are important for nurses to provide, please describe below

If there are other aspects of nursing care that nurses provide that you think are unimportant, please describe below

Appendix 6 Barthel's Activities of Daily Living

BARTHEL ADL INDEX (BAI)

Code:

Insert MRN sticker here

ON ADMISSION DATE: _____/_____/_____

ON DISCHARGE DATE: _____/_____/_____

FUNCTION	SCORES				DESCRIPTION
	Pre/A	O/A	Education Provided	D/C	
BOWELS	☐ 0	☐ 0	___/___	☐ 0	Incontinent (or needs to be given enema)
	☐ 1	☐ 1	___/___	☐ 1	Occasional accident (oncce a week)
	☐ 2	☐ 2	___/___	☐ 2	Contine nt
BLADDER	☐ 0	☐ 0	___/___	☐ 0	Incontinent, or catheterised & unable to manage
	☐ 1	☐ 1	___/___	☐ 1	Occasional accident (max, once per 24 hours)
	☐ 2	☐ 2	___/___	☐ 2	Continent (for more than seven days)
GROOMING	☐ 0	☐ 0	___/___	☐ 0	Needs help with personal care: face,hair, teeth,shaving
	☐ 1	☐ 1	___/___	☐ 1	Independent (implements provided)
TOILET USE	☐ 0	☐ 0	___/___	☐ 0	Dependent
	☐ 1	☐ 1	___/___	☐ 1	Needs some help but can do somethings alone
	☐ 2	☐ 2	___/___	☐ 2	Independent (on and off, wiping, dressing)
FEEDING	☐ 0	☐ 0	___/___	☐ 0	Dependent
	☐ 1	☐ 1	___/___	☐ 1	Needs help in cutting, spreading butter etc.
	☐ 2	☐ 2	___/___	☐ 2	Independent (implements provided)

TRANSFER	☐ 0	☐ 0	☐ 0	Unable - no sitting balance
	☐ 1	☐ 1	☐ 1	Major help (physical, one or two people, can sit)
	☐ 2	☐ 2	☐ 2	Minor help (verbal or physical)
	☐ 3	☐ 3	☐ 3	Independent
MOBILITY	☐ 0	☐ 0	☐ 0	Immobile
	☐ 1	☐ 1	☐ 1	Wheelchair independent, including corners etc.
	☐ 2	☐ 2	☐ 2	Walks with help of one person(verbal or physical)
	☐ 3	☐ 3	☐ 3	Independent
DRESSING	☐ 0	☐ 0	☐ 0	Dependent
	☐ 1	☐ 1	☐ 1	Needs help but can do about half unaided
	☐ 2	☐ 2	☐ 2	Independent (including buttons, zips, laces etc)
STAIRS	☐ 0	☐ 0	☐ 0	Unable
	☐ 1	☐ 1	☐ 1	Needs help (verbal, physical, carring aid)
	☐ 2	☐ 2	☐ 2	Independent up and down
BATHING	☐ 0	☐ 0	☐ 0	Dependent
	☐ 1	☐ 1	☐ 1	Indepenent (bath:must get in and out unsupervised and wash self. Shower: unsupervised, unaided)

SCORE: ☐☐ ☐

BARTHEL ADL INDEX (BAI)

INCORPORATING OREM'S SELF-CARE REQUISITES

Self-care Requisites	Date	Comments During Hospitalisation	Comments Before Discharge
Manage elimination - toilet use			
Manage elimination - bladder function			
Manage elimination - bowel function			
Maintain intake of food and fluids - feeding functions			
Normacy - manage grooming			
Normacy - manage dressing			
Normacy - manage bathing			
Balance activity and rest - manage mobility			

Balance activity and rest - manage transfer			
Balance activity and rest - manage stairs			
Balance solitude and social Interaction			

Appendix 7 Mini-Mental State Examination

Mini-Mental State Examination

Patient Name _____ Date_____ Score

Orientation	Day_____ Date_____ Month_____ Season_____ Year_____	5
	Floor of building_____ Suburb_____ Town_____ State_____ Country_____	5
Registration	Name three objects (e.g. "apple", "table", "penny"): One second each. Ask patient to repeat all three. One point each. Repeat until all 3 items are learned but only score the first attempt. (Recall is tested later).	3
Attention & Calculation	**EITHER**: Serial 7's (93, 86, 79, 72, 65). One point each. Stop after five answers.	5
	OR: Spell 'world" backwards. One point for each letter in correct order (D_L_R_O_W).	
Recall	Recall the three previous words. One point each.	3
Language	a. Show the patient a watch and ask what it is. b. Repeat for a pencil	2
	Repeat: "No ifs, ands or buts."	1
	Follow a three-stage command, as per instructions.	3
	Read and obey the command printed below: "Close your eyes."	1
	Write a sentence. It must make sense, ignore spelling.	1
Praxis	Copy the design below. All ten angles must be present and two must intersect to form a four sided figure to score one point. Tremor and rotation are ignored.	
Instruction	CLOSE YOUR EYES	
Write a sentence	_____ _____ _____	
Copy this design		

Total Patient Score

Maximum Score 30

References: 1. Exelon Product Information. 2. Derived from: Folstein MF, Folstein SE, McHugh PR. "Mini-Mental State": a practical method fro grading the cognitive state of patients for the clinician. *J Psychiatr Res*. 1975:12:189-198. 3. Derived from: Cockrell JR Folstein MF. Mini-Mental State Examination (MMSE). *Psychopharm Bull*. 1988:24:689-692.

Appendix 8 Medication Regime Assessment Form

MEDICATION REGIME ASSESSMENT

INCORPORATING NICHE MEDICATION CONCEPTS

Code: _____

Insert MRN sticker here	ON ADMISSION DATE: ____/____/____ ON DISCHARGE DATE: ____/____/____

DOES THE PATIENT:	Knowledge Levels On Admission		Education Date			Knowledge Levels Before Discharge	
	Very Poor	Very Good				Very Poor	Very Good
Understand what is on the medication label eg: can the patient read the label -is the print large enough	1 2	3 4	__/__	__/__	__/__	1 2	3 4
Know what the medication is used for	1 2	3 4	__/__	__/__	__/__	1 2	3 4
Know how often to take the medication and what the term PRN means	1 2	3 4	__/__	__/__	__/__	1 2	3 4
Know the circumstances of when to take the medication eg. with food, before or after food	1 2	3 4	__/__	__/__	__/__	1 2	3 4

Know how to open the medication container & consume or self-administer the medication as intended eg. Inhaler, nebuliser or spacer	1 2 3 4	__/__	__/__	__/__	1 2 3 4		
Know the common side effects & interactions of each medication	1 2 3 4	__/__	__/__	__/__	1 2 3 4		
Know when, where & how to make follow-up appointments to the relevant doctor for a repeat prescription	1 2 3 4	__/__	__/__	__/__	1 2 3 4		

Score On Admission: ☐ **Score Before Discharge:** ☐

Pharmacist informed? YES / NO

Key to Knowledge levels:

1 = Nil knowledge
2 = Little knowledge
3 = Good knowledge
4 = Excellent knowledge

MEDICATION REGIME ASSESSMENT

INCORPORATING NICHE MEDICATION CONCEPTS

DOES THE PATIENT:	Date	Comments During Hospitalisation	Comments Before Discharge
Understand what is on the medication label eg: can the patient read the label -is the print large enough			
Know what the medication is used for			
Know how often to take the medication and what the term PRN means			
Know the circumstances of when to take the medication eg. with food, before or after food			
Know how to open the medication container & consume or self-administer the medication as intended eg. Inhaler, nebuliser or spacer			
Know the common side effects & interactions of each medication			

Know when, where & how to make follow-up appointments to the relevant doctor for a repeat prescription		

Appendix 9 Discharge Checklist Form

Stick MRN sticker here

Patient Discharge Checklist

Checklist Item	**Yes (Tick when attended)**	**Comments** (i.e. problems encountered)
1. What is the estimated discharge date? Date: __/__/____ New Date: __/__/____ New Date __/__/____		
2. Are the patient and/or family carer aware of their illness?		
3. Are the patient and/or family carers aware and involved in their discharge process? (Is it documented in the nursing care plan, see case conference notes)		
4. Has the discharge planning forms been commenced?		
5. Are the patient and/or family carers educated about the medications they will be taking home?		
6. Has the patient and/or family carer received a copy of the medication summary care from pharmacy?		
7. Has the discharge form been completed?		
(The Ward Clerk will fill out number eight and nine) 8. Has the discharge summary form been faxed/sent to the G.P and Community health service?		